

# **small air forces observer**

vol. 28 no. 1 (109)  
July 2004

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**Air War Holland: May 1940 (Part 1)**  
**Israeli Vautours**

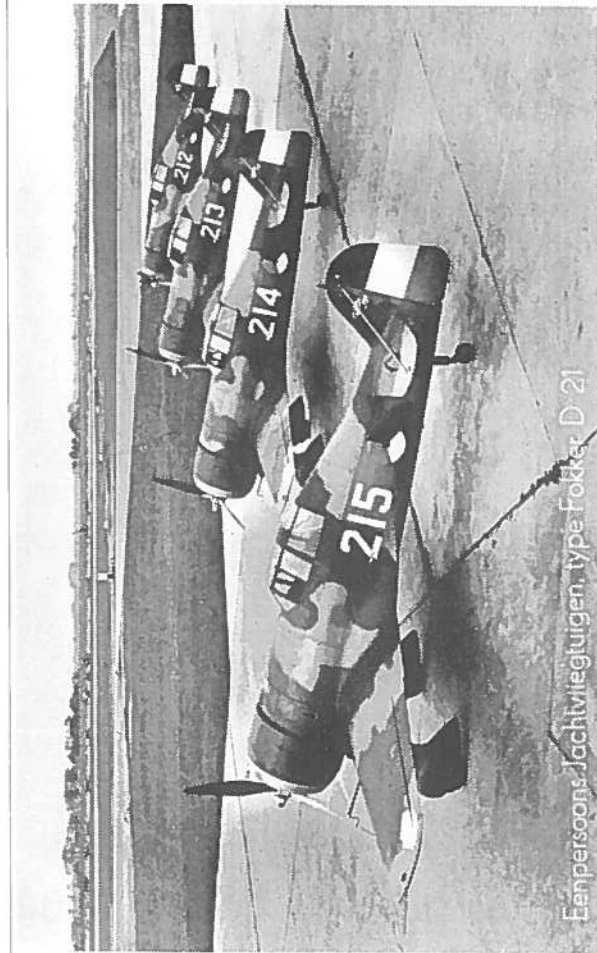
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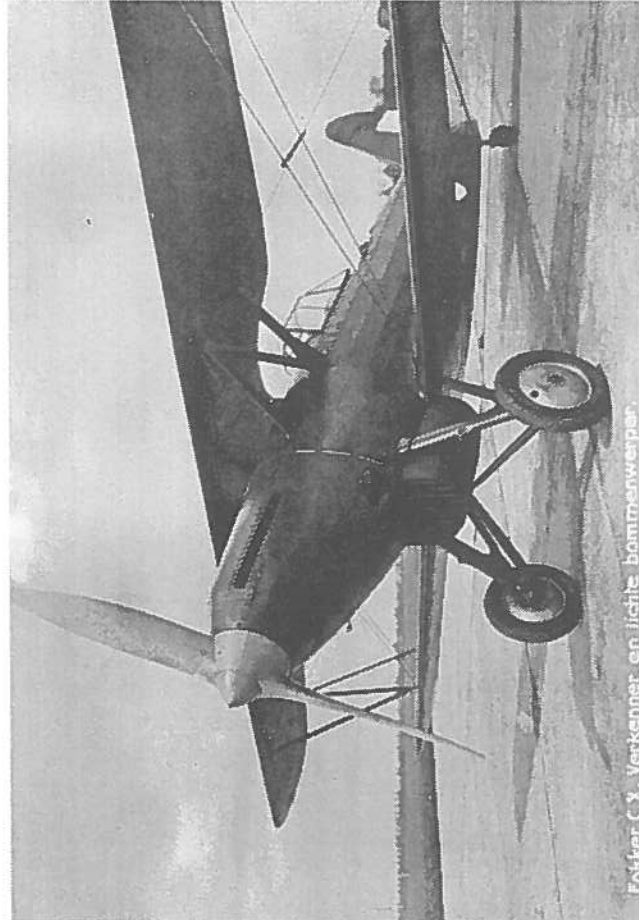
Fokker T.5 en 2 D.21-machines

B



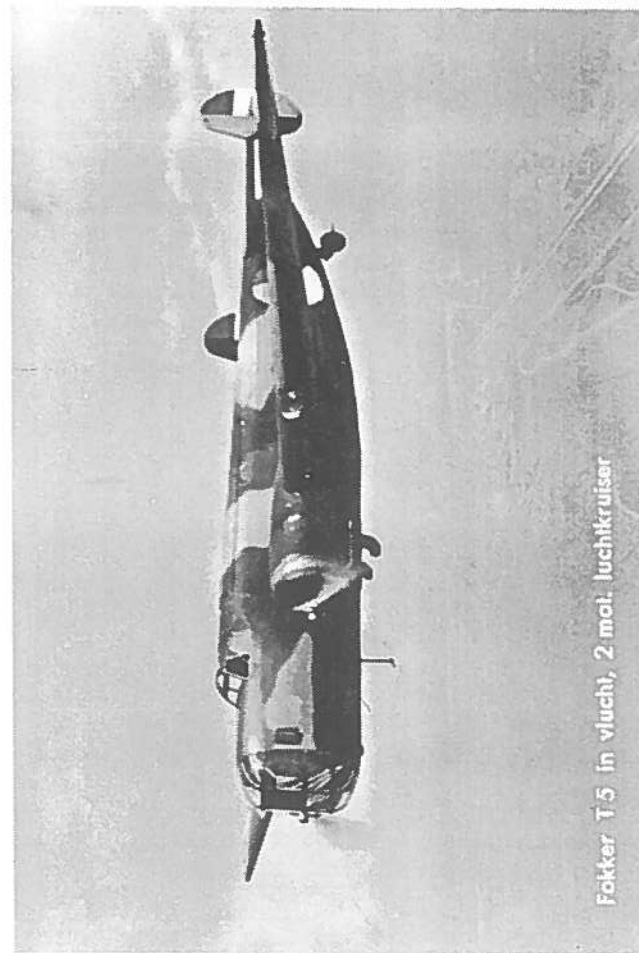
Eenpersoons Jachtvliegtuigen, type Fokker D 21

A



Fokker C.X. Verskenner en lichte bommenwerper

D



Fokker T.5 in vlucht, 2 mol. luchtkruiser

C

# SMALL AIR FORCES OBSERVER

The Newsletter of the Small Air Forces Clearing House  
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## Photo Captions

(All photos are from Doug Dildy's collection, unless otherwise noted).

### Cover Photo:

A formation of Fokker C.5d two-seat fighters flying over Holland. These aircraft (led by #307) are five of 26 of this type acquired in 1926-27 and are powered by the Hispano-Suiza 450 hp liquid-cooled engine. They belong to the **Jachtvliegtuigafdeling** (Fighter Flying Division) based at Soesterberg in the early 1930s. Both aircraft flying on the left wing (#304 and #325) were written off in 1933. The others were among those re-engined, re-serialised in the 600-649 range, and became battlefield observation aircraft assigned to **Verkenningsgroepen** (Reconnaissance Groups or **Verk Gp**) during the mobilization in preparation for World War II.

### Page 2: Pre-war Dutch postcards

A. "Single-seat Fighter Planes, Type Fokker D.21". A line-up of the first four D.21 fighters on the parking apron at Schiphol airfield. This type formed the backbone of the Dutch air force's fighter defense until the arrival of the more modern and more powerful G.1 twin-engine fighter.

B. "A Fokker T.5 and two D.21 Machines". A Fokker publicity photo of the company's latest products, a pair of new D.21s "escorting" a new T.5 bomber. The T.5 (#852) was the third built and would not see combat. It suffered a catastrophic hydraulic malfunction in December 1938 and was at the Fokker factory for repairs. It was destroyed there.

C. "Fokker T.5 in Flight, Twin Engine Air Cruiser" The T.5 became a medium bomber, the multi-role **luchtkruiser** concept having fallen into disfavor by the time it was fielded. Serial number is unknown.

D. "Fokker C.10 Reconnaissance and Light Bomber". Initially ordered to replace the aged and obsolete C.5d, the C.10 could not be pur-

chased in sufficient quantities to do so. Thus it was used to equip the Dutch High Command's Strategic Reconnaissance Division (**StratVerVA**). During the May Days (**Meidagen**) of 1940 it was primarily used as a ground attack machine. Serial number is unknown.

### Page 35: Aircraft of the 1<sup>st</sup> Luchtvaart Regiment.

E. Line up of seven T.5s of the **BomVA** (Bomber Division) at Schiphol. Note that almost all the aircraft beyond #851 are lacking their rudders. The T.5 fleet was plagued by a critical shortage of parts, of which this is a dramatic example.

F. Line up of 12 C.10s of the **StratVerVA** at Schiphol. In spring 1940, this unit was transferred to the newly completed airfield at Bergen, in northern Holland. Because of the lightness of this design, these aircraft were able to be dispersed around the perimeter of the airfield, hidden under trees, and largely escaped destruction in the initial **Luftwaffe** attacks

G. D.21 (#233) at Schiphol's Open Day, 1 July 1939. This aircraft was assigned to the **1e JaVA** (1<sup>st</sup> Fighter Division) based at Soesterberg at the time. On May 10<sup>th</sup>, 1940, this aircraft flew one operational sortie and was damaged beyond repair in a dramatic dogfight with Bf.109s. It was hangared to be used for spare parts, but was destroyed later that day by a **Luftwaffe** air raid. Note rudder (previously red-white-blue) has been painted black. (Photo from the Frits Gerdessen Collection)

H. Fokker G.1 (#302) parked at an airfield. This aircraft, the third production machine acquired, was assigned to the **3e JaVA** which was based at Waalhaven airfield near Rotterdam. On May 10<sup>th</sup> it was flown by 1Lt J.P. Kuipers who used it to shoot down two Heinkel He.111 bombers. It was damaged by enemy return fire and landed

at Waalhaven where it was trapped and later destroyed in the ground fighting.

### Page 36: The C.5d and Dutch Warplanes in Flight

I. Fokker C.5d (#617) leading a flight of observation aircraft. This machine was originally acquired in 1927 as a C.6 (LVA designation for the C.5e with the 350 hp HS engine) observation aircraft and upgraded with the HS 450 hp engine in 1933-36, becoming a C.5d-RR with the same serial number. On May 10<sup>th</sup> it was assigned to the **Ille Verk Gp** based at Ruigenhoek, near the beach south of Haarlem.

J. Fokker C.5d (#592) fully armed. This view shows the RR Kestrel-engined C.5d to good effect as a light bomber. According to one Dutch pilot, Lt S.J. Postma, the small (17.6 lb/8kg) bombs were "a yellow color". Note the 7.9 mm Lewis machine gun on the rear cockpit ring. This aircraft too began life as a C.6 observation aircraft and was upgraded to a C.5d-RR. On May 10<sup>th</sup> it was also assigned to **Ille Verk Gp**.

K. Fokker G.1 (#301) in flight. A good look at a G.1 in pre-war Dutch markings. Aircraft #301 was assigned to **4e JaVA** at Bergen airfield on May 10<sup>th</sup> and since the G.1 was too heavy to be dispersed around the airfield, it was among those parked on the concrete apron that morning. It was damaged in the initial **Luftwaffe** attack and, not being repaired by the end of the campaign, was burned at Bergen on May 14<sup>th</sup>.

L. Fokker T.5 (#857) patrolling the Dutch coast during the summer of 1939. On May 10<sup>th</sup>, 1940, this aircraft was undergoing overhaul at Schiphol and was lost there. (Photo from the Frits Gerdessen Collection)

## AUSTRIA

**OFH NACHRICHTEN** (Oesterreichische Flugzug Historiker, Pfenniggeld. 18/2/14, A-1160 Wien. Write for free sample.)

**1/04** (40 pages) "25 Jahre, Osterreichisches Luftfahrt-Museum, Graz-Thalerhof" 8 pages including 11 photos (3 in color) [Hungarian MiG-21, Polish MiG-15, Swiss Hunter, Swedish Lancer & Draken]. "Zum Verbleib des Lohner-Flugbootes vom Worthersee: War das das Ende der 'Nelly'" 4 pages including 5 photos. "Phoenix D.III fur Schweden" 3 pages including on photo and 3 side-view drawings. Full-page color side-view drawing: Albatros D.III. [Ed: I'm confused by the caption, "Russisches Beuteflugzeug, Spatere Flugzeugnummer 00.38, FLEP 4 Lemberg April 1918". A friend, a Native of Germany, translated the first phrase as either "Captured from the Russians" or "Captured by the Russians". By April 1918, Russian aircraft should have been carrying red stars. The roundels shown are those I've always associated with the early Czechoslovak Air Force, but the date and location (Lwow) would make it unlikely that this would be a Czech aircraft. It might help if I knew what FLEP means. Help!]

## BELGIUM

**KIT** (IPMS Belgium, c/o Michel Willot, dreve de Champagne 14, B-1190 Bruxelles; International Postal Money Order for \$30 for 4 issues.

**#129 2/2003** (36 pages) "Bf 109G-6 Hasegawa 1/32" 12 pages including 4 color and 46 b&w photos of the model in various stages of construction and finished in Hungarian markings. "Bloch MB.152 Groupe de Chasse 1/8, 1940" 5 pages including 9 photos of the completed model and 2 pages sketches of details. "Gloster Meteor FMk.1 Maquette Tamiya 1/48" 4 pages including 3 photos, a 3-view drawing of 'official' RAF camouflage scheme, and 9 side-view drawings of RAF Meteors. "Du Morane Saulnier MS 406 au Morko-Morane: Conversion Moonshine Models sur kit Hasegawa" one page including 4 photos of the model.

**130-131 3/2003** (68 pages) "Le Fokker E.V (D.VIII)" 4 pages including 11 photos of aircraft in Belgian markings. "Le Fokker E.V du Lieutenant Van Cotthem, Version 'Meeting Evere 1921'" including 4 photos of the completed model (2 in color) and a 1/48-scale 3-view drawing. "Le Fokker E.V belge au 1/48e" 8 pages including 25 photos (3 in color) of the model under construction and completed in Belgian markings, and a 1/48-scale 3-view drawing. "Renard R-36" 3 pages on building the 1/72-scale resin kit by Dujin including one photo of the aircraft. "Montage du Spitfire MK.XIVe de Academy au 1/48e aux couleurs belges" 6 pages including 14 photos of the model under construction and completed. [Ed: Included is a decal sheet (10 cm by 13 cm) with markings in both 1/72- and 1/48-scale for the two Belgian Fokker E.Vs featured in this issue.]

**132 4/2003** (36 pages) "DHC-3 Otter 1/72e et 1/48e Hobbycraft" 8 pages on the Belgian Antarctic Otter (featured on the sheet from MAX Decals) including 17 photos of the aircraft displayed in the Belgium Museum and 7 photos of the completed model. "DC6-A, B, & CF" 4 pages on the DC-6 with Sabena and building the 1/72-scale Heller kit including fleet list, 5 color photos of the aircraft, and 7 photos of the completed model. "Le Fokker DR.1 de Smer au 1/48" 4 pages including 14 photos (2 in color) of the completed model. "Kits at War, Belgian Air Force: Dutch Decals Ref K4/10 (1/48e)" a one-page review of decal sheets including 4 side-

view drawings (Fiat CR.42, Gloster Gladiator, Hawker Hurricane, & DeH Mosquito). "Supermarine Spitfire Mk.XVIe: Part 1, Lifelike Decals, Ref 48-006" a one-page review of the decals including 4 side-view drawings (one Belgian AF).

## BRAZIL

**REVISTA** (IPMS Brazil, Rua Lucidio Lago, 457/206 Meier - Rio de Janeiro, CEP 20.780-020) E-mail: ipmsbrasil@ieg.com.br

**#108 Dezembro 2003** (16 pages) "IA.33 Pulqui II" 4 pages including a 3-view drawing. "Beechcraft AT-11 Kansan" 3 pages with a 1/72-scale 4-view drawing and 2 photos of a/c in Brazilian markings. "Spad 54 Herbemont" 2 pages with a 1/72-scale 3-view drawing and one photo of a/c in Brazilian markings.

## CANADA

**RANDOM THOUGHTS** (IPMS Canada, Box 626, Stn. B, Ottawa, Ontario K1P 5R7; 6 issues for US \$24.00 in US \$26.00 elsewhere).

**28/5** (20 pages) "Modelling an Canadian Pacific Airlines C-46 Commando" 3 pages including 3 photos (2 in color) of the completed model. "Scratchbuilding a Royal Canadian Navy Submarine in 1/96 Scale" 7 pages including 6 color and 14 b&w photos.

## CZECH REPUBLIC

**REVI**: Dvoumesicnik a letadlech a letcich. REVI Publications, PO Box 143, Svojskova 1588, 708 00 Ostrava-Poruba, Czech Republic. E-mail: redakce@revi.cz. Web site: www.revi.cz.

**#39 Srpen 2001** (56 pages) "Jindra Plechovka tahne do boje" 5 pages including 5 photos of Finnish Blenheims and 3 color side-view drawings of RAF Blenheims. "Pripad Defiant: Dobre utajene esa" 5 pages including 4 photos and 3 color side-view drawings of RAF Defiants, "Heinkel He 111A a Martin 139WC na cinskem nebi" 6 pages including 10 photos of Chinese aircraft (one of a He 111 with radial engines from a DC-3). "-159 in Detail" one page with 7 color photos of interior and exterior details.

**#40 Rijen 2001** (56 pages) "Nakajima B5N Kate" 7 pages including 8 photos and 3 color side-view drawings. "Letali jsme na 'turbinah'" 4 pages including 3 photos and 2 color side-view drawings of Czechoslovak Me 262. "Dogan" 3 pages including 5 photos and 3 color side-view drawings of Bulgarian B-534. "AGON - Aiagruppa osobovo naznacenija" 4 pages including 4 photos and 3 color side-view drawings (Soviet Sopwith Triplane, Nieuport 24 and Sopwith Strutter). "Jindra Plechovka tahne do boje" 9 pages including 11 photos, two color 3-view drawings of Finnish Blenheims, and 3 pages of 1/72-scale multi-view scale drawings of the Blenheim Mk.I (with cross sections).

**#41 Prosinec 2001** (56 pages) "Yasuhiko Kuroe" 3 pages including 3 photos and 4 color side-view drawings [Nakajima Ki-44, Ki-43 (2), & Ki-108]. "Jindrova posledni valka" 6 pages including 3 photos of post-war Finnish Blenheims and 4 pages of multi-view 1/72-scale drawings and sketches of the Blenheim Mk.IV. "Povodni italske kamuflazni bary na Fiatech G.50" 3 pages including 4 photos and 2 color side-view drawings (and top view) of Italian G.50. "Pozorovaci letoun Letov S-50" 3 pages including 6 photos. "Siebel Si 202 Hummel" 3 pages including 8 photos (one Slovak). "MiG-21 v Egypte a Syrii 1962-1973" 5 pages including 5 photos, list of 'victories', and 4 color side-view

drawings. "Cervene trupove pruhy letounu Flik 60J, 14J a 9J" 5 pages including 6 photos and 6 color side-view drawings of Phoenix DI and DII.

**#42 Duben 2002** (56 pages) "Konec dalsiho mytu" 3 pages including 2 photos and 4 color side-view drawings [Nakajima Ki-34 & Kawanishi Ki-61 (3)]. "Szor atya' vitez szds. Gyoza Levay" 7 pages including 4 photos and list of all Hungarian Ju 87. "Photo Album 39-45" one page with 5 photos of Czechoslovak aircraft on display for Nazi bigwigs (many of the aircraft carry swastikas on the wings as well as on the rudder). "Velitelске Oznacenie na letectva italianskeho vojenskeho letectva v rokoch 1935-1945" 4 pages including 3 photos, a color 3-view drawing (MC.202), and 3 color side-view drawings [CR.32 (2) & CR.42]. "Letouny polske vyroby ve sluzbach Luftwaffe" 4 pages including 10 photos of Polish aircraft in Luftwaffe markings (P.37, P.7, Potez 25, P.43, PWS-26, RWD-8, & RWD-13). "Arado Ar 79" 3 pages including 6 photos and 4 color side-view drawings [Spanish, Luftwaffe (2), & Manchurian]. "Prvni letecke vitezstvu cs. Pilota ve 2. svetove valce" 5 pages including 8 photos (Curtiss 75 and Hurricane). "Pozorovaci letoun Letov S-50" 8 pages including 11 photos and 2 pages of color drawings (side-view of a/c in overall aluminum paint, side- and top-views of camouflages aircraft in Czech markings, and side- and top-views of a/c in Luftwaffe markings with a small Czech flag flying over the cockpit). "Su-15 in Detail" 3 pages with 20 color photos of exterior details of a SU-15 in Ukrainian markings.

## DENMARK

**NYT** (IPMS Denmark, c/o Lars Seifert-Thorsen, Guldregnevvej 4, 4600 Koge. 4 issues for 260 Dkr). Each issue includes a two-page English summary. Web: www.ipms.dk

**#101** (40 pages) "Aegypten for IPMS ere" 6 pages on a visit to Egyptian military museums including 6 photos (2 aircraft; MiG-21 and PZL Wilga). "KZ IIT" 2-page review of the 1/72-scale resin kit the Danish trainer including a photo of the parts and the scale multi-view drawing from the instructions. "Det forste US Navy 'es'" 3 pages including 2 photos and a 3-view drawing of David Ingalls' Camel.

**#102** (40 pages) "Apollo 17" 7 pages on the mission including 7 photos and a list of kits. "Gruuman F7F Tigercat" 3 pages on the aircraft including 5 photos of preserved aircraft. "Scharnhorst" a 3-page history including 6 photos.

## FINLAND

**IPMS-MALLARI** (IPMS Finland, PL 798, 00101 Helsinki 10; 6 issues \$20.00, no check accepted due to the high redemption costs). Now with captions in English.

**#152 1/2004** (16 pages) All articles are devoted to the Finnish Leopard tank.

**SUOMEN ILMALUHIHISTORIALLINEN LEHTI** (InScale 72, Jakomaentie 8bC 300, FIN-00770 Helsinki. Subscription: Europe \$25, elsewhere \$30; Payment by International Postal Order or in cash; no cheques accepted because of high redemption rates). Each issue includes a 2-page English summary.

**1/2004** (24 pages) "DH Moth K-SATA" 2 pages including 2 photos. "Air Operations of Pohjolan Voima Oy 1952-64" 5 pages including 5 photos (Seabee & Fairchild 24. "Night Fighter Operations in Finland 1943-54: Part 6" 5 pages. "Curtiss P-40M KH-51" 4 pages including 6 photos. "Squadron 32



in Action 1940-42: Part 5" 6 pages including 7 photos and a 1/72-scale 4-view drawing of Curtiss 75A Hawk.

## FRANCE

**AIR MAGAZINE**, TMA, 75 rue Claude Decaen, 75012 Paris, France. Six issues a year. 35 euros in France, 41 euros in Europe, and 50 euros for the rest of the world. Payment by Visa, Eurocard, Mastercard. E-mail: [airmagazine@wanadoo.fr](mailto:airmagazine@wanadoo.fr).

**#18 Fevrier/Mars 2004** (64 pages) "Le sauvetage manqué du 'Neptune'" 4 pages on the flight of a Felixstowe F2A from Malta to Gibraltar including 3 photos. "Les Potez 63" 8 pages on small air force Potez 63 including 14 photos, 5 color side-view drawings [Luftwaffe, Swiss, Yugoslav, Romanian (2)], and 2 color 3-view (side- top- and bottom-views) [Greece & Romania]. "Les Ni-D '72' et D-27 en Roumanie" 4 pages including 4 photos and a color side-view drawing of a Dewoitine D-27. "Le Morane 406 et la force aerienne polonaise" 12 pages including 30 photos, 13 color side-view drawings, and a color 4-view drawing (port, starboard, top, bottom) of the a/c flown by Kazimierz Bursztyn. "Le Vultee V-1/V-1A" 24 pages including 40 b&w photos, 14 color photos of a museum a/c, a table listing the history of all V-1/1A, 11 color side-view drawings [civil (4), Soviet (on floats), Spanish (6)], 3 color 3-view drawings (side, top, bottom) [Spanish Republican & Spanish Nationalist (2)], and 2 pages of multi-view 1/72-scale drawings with cross sections. Four pages of reviews of kits and books. [Ed: Legato has a 1/72-scale resin Avia BH-33, HR Model 1/72-scale resin Avia B-534/I and B-534/III, and Alliance a 1/72-scale resin IAR-39.]

**AVIONS**: Toute l'Aeronautique et son Histoire (Lela Presse, 29 rue Paul Bert, 62230 Outreau, France. 420F for 12 issues).

**#132 Mars 2004** (62 pages) "Evgenii Pepelyaev" 21 pages on a Russian Korean War Ace including 41 photos, a table listing 'victories', a color cover painting, 4 color side-view drawings, and a color 4 view-drawing of his MiG-15. "Concord: La page est tournée" 12 pages including 31 photos and five 3-view drawings of the 'competition' (Lockheed L-2000, Boeing 2707, -200, Boeing 2707-300, Concord, and Tupolev Tu-144). "Typhoon contre Taifun: 1943" 4 pages including 9 photos and a color side-view drawings of a Luftwaffe Bf 108. "TG 30: Vers les poches de l'Atlantique" 12 pages including 25 photos, 2 color side-view drawings, and a color 2-view drawing (side & top) of He 111. "Le Curtiss-Wright 22" 11 Pages including 28 photos (Ecuador, Peru, Uruguay, & Bolivia), and a 3-view scale drawing.

**#133 Avril 2004** (62 pages) "Le Curtiss H-75A en 39/40" 17 pages with 31 photos, a color cover painting, 6 color side-view drawings, and a color 3-view drawing. "Les Dewoitine D.520 Bulgares au combat" 12 pages including 30 photos and 2 color side-view drawings. "Un as du torpillage, Marino Marini, et son sauvetage par le U-331" 8 pages including 22 photos and a color side-view drawings of his S.79. "Boeing B-47 Stratojet: Arme de dissuasion de la Guerre Froide" 10 pages including 16 photos. "Pionnier francais Leon Delagrang: le sculpteur du ciel" 8 pages including 17 photos. "Le Savoia-Marchetti S.79 'Aerossilurante' Maquette Classic Airframe au 1/48" 4 pages including 13 color photos of the model under construction and completed.

**#134 Mai 2004** (62 pages) "Farman 2231 'Laurent Guerrero'" 6 pages on the large four-engine (two engines in tandem in each nacelle) transport in-

cluding 16 photos. "Theo Osterkamp: Un as dans deux guerres" 13 pages including 27 photo of a variety of German WWI aircraft. "Cahier Special: Zero sur Rabaul" 19 pages with 32 photos and 18 color side-view drawings (two to a page expect for the center which has two drawings extending across two pages). [Ed: The article is unequivocal about the colors carried by the Zeros; identifying the 'greens' as FS34052 and FS34077, and the various 'grays' as FS36357, FS36307, FS10277, FS16350, FS14201 & FS16160. These latter identifications should set by a fire-storm among Zero buffs.] "Des avions Italiens a étoile rouge" 16 pages on Italian aircraft in Soviet markings including 38 photos [Ansaldo Balilla, SVA-10 & A.300; Savoia S-55, S-16bis & S-62bis (MBR-4); Fiat CR.32; SM.82; and Italian-built Dornier Wal] and a 3-page 1/100-scale multi-view drawing of the S.26bis. "Album photo: Les Spitfire sovietiques" 3 pages with 8 photos.

## GERMANY

**FLIEGER REVUE** (Verlag Fliegerrevue, Herrn Detlef Billig, Oranienamm 48, D-13469 Berlin. 12 issues per year, \$76 surface. Payment by check drawn on German bank).

**1/2004** (68 pages) "Kapustin Jar: Russlands geheimes Kosmodrom" 7 pages including 15 photos and a map. "Deutsche Schätze in Silver Hill" 5 pages including 16 photos. "Mit zivilem Kennzeichen im Einsatz" 4 pages including 7 photos and 5 color side-view drawings (Spitfire IX, Hawker Sea Fury, AT-6A Texan, Pilatus PC-9, & Douglas RB-26C). [Ed: All sporting very colorful schemes.] "U-Bootjäger Sea Hawk" one page on Italeri 1/48-scale kit including 9 color photos of completed model. "Savoia Marchetti SM.79 Sparviero in 1:72" one page on the Italeri kit with 12 color photos of the completed model.

**2/2004** (68 pages) Color photo: United Arab Emirates F-16E/F. "Im Nest der Lancer" 3 pages with 8 photos (Romanian MiG-21, MiG-29, Yak-52, L-39, Aerostar 01, IAR 330, IAR 99, & IAR 93 Oro), "Adieu Mirage IIIRS" 2 pages with 4 photos of Swiss Mirages. "Highlights der Luftfahrtgeschichte" 4 pages on the new NASM facility including 8 photos. "Fw 189 Uhu in 1:72" one page on the Italeri kit including 9 photos of the completed model. "Die Thunderchief in 1:32!" one page on the Trumpeter kit including 9 photos of the completed model.

**3/2004** (68 pages) Color photo: Spanish F-18 '12-20'. "Neue Falken startklar" 5 pages including 12 photos of F-16s of United Arab Emirates, Israel, & Greece. "Klassische Propliner der Deutschen Fluggesellschaften (1): Douglas DC-3/C-47 (1)" 4 pages including 6 photos and 5 color side-view drawings of DC-3/C-47 in the markings of various German airlines. "Dessauer Seacaufklärer" one page on the 1/72-scale kit of the Ju 90 including 9 color photos of the completed model. "Me 109 XXL!" -page on the Trumpeter 1/24-scale kit including 6 color photos of the completed model. "Henschel Hs 123 in 1:48" -page on the Italeri kit including 3 color photos of the completed model.

**FLIEGER REVUE EXTRA** (Verlag Fliegerrevue, Herrn Detlef Billig, Oranienamm 48, D-13469 Berlin. 4 issues per year, \$66 surface. Payment by check drawn on German bank)

**#4** (132 pages) "Die Regierungsfieger der DDR" 26 pages including 64 photos and 8 color side-view drawings [Il-14, Il-18, Tu-124 (2), Mi-8S, Tu-134A, Il-62M, & Tu-154M] [Ed: Here an opportunity to use those Tom-Modelbau decals of East German national insignia.]. "Helisser Himmel im Kalten

Krieg" 18 pages including 36 photos, 3 maps showing US over-flights of Russia, detailed descriptions of every US reconnaissance aircraft shot down during the 'Kalten Krieg', and 3 color side-view drawings (RB-45C, MiG-15, & PB4Y-2). "Aeronavale: Die französische Marineflieger im neuen Jahrtausend" 34 pages including 66 photos (Rafale, Super Etendard, Hawkeye, Atlantic, Falcon 50, Xingu, Lynx, SA.321, Alouette III, Panther, Falcon 10, Cap 10, Rallye 100, Nord 262, Aquilon, Hellcat, Etendard IVM, F4U-7 Corsair, F-8P, MS.760, HSS-1, TBM-3W, P2V-7, Alize, & Dauphin), squadron histories, and 7 scale drawings (side- & top views) of French aircraft carriers (Bearn, Dixmude, Bois Belleau/La Fayette, Arromanches, Jeanne d'Arc, Clemenceau/Foch, & Charles de Gaulle). [Ed: If I knew where to get 1/700 scale kits of the Brewster Buffalo and Curtiss biplane Helldiver, I'd consider scratch building a Bearn.] "Convair Story: Tell II" 14 pages including 37 photos (mostly civil transport planes except for 4 photos of Pogo and a small 3-view drawing of the XA-44, a swept-forward wing tailless attack plane). "Der unerklärte Krieg am Chasan-See und am Chatchin-Gol" 18 pages including 27 photos, several maps, and 14 color side-view drawings [Soviet R-Z, I-16 (4), I-152, I-152, TB-3, SB; and Japanese Ki-15, Ki-27 (3), & Ki-30]. "Die legendäre Tu-104: Tell II" 14 pages including 16 photos and 6 color side- and one top-view drawings.

**MITTEILUNGEN** (IPMS Germany, Bergengruenstrass 5-7, D-1000 Berlin 38; 12 issues DM 60.00 Europe, DM 65.00 USA, DM 70.00 Japan, DM 75.00 Australia).

**1/2004** (40 pages) Nothing of small-air-force interest. However, it does include a 7-page insert of new kits scheduled for release in 2004. In injection-molded 1/72-scale aircraft I particularly noticed a Sea Otter from Azur; a Meteor Mk 8 & Hudson Mk I from MPM; a DH-9 and Junker D.I from Roden; and a Fw 58 Weihe, Koolhoven FK-51, & Romeo Ro.57 from Special Hobby.

## ITALY

**AERO FAN Storia di Italiane**. Italian-English text. (Giorgio Apostolo Editore, Via Ampere 49, 20131 Milano, Italy.) 4 issues L 80,000.

**#87 Ott.-Dec. 2003** (68 pages) "The Last C.202s: A unknown chapter in the history of a famous fighter" 14 pages about the C.202 built for the Luftwaffe and the destruction of the factory by the 15<sup>th</sup> AF including 12 photos and a color side-view drawing of a C.202 in Luftwaffe markings. "Italian Transport Aircraft on European Routes: The twin-engine Fiat G.18 and G.18V" 24 pages including 56 photos and a color 3-view drawing. "In Libya with 151<sup>o</sup> Gruppo: Ambrosi, a fighter pilot of 368<sup>o</sup> Squadriglia in 1940/41" 8 pages including 9 photos of CR.42. "The last flight of Maresciallo Tarantola: The wrecks of Maresciallo Ennio Tarantola's G.55 have been found near Turin" 12 pages including 6 b&w period photos and 7 color photos of recovery process.

**JP-4 Mensile di Aeronautica** (JP-4, Via XX Settembre 60, 50129 Firenze; L 27.000 Europe, L 30.000 elsewhere).

**Marzo 3/2004** (100 pages) Color photos: Civilian L-39 Albatros 'RA-1909K'; Japanese SH-60J '91'; Thai OV-10; Spanish Hornet '12-20', and Israeli Hawkeye & F-16i '253'. "Roll-out del Global Flyer" 2 pages including 6 photos. "La nuova casa dei Flying Bulls" 4 pages including 9 photos. "X-31 Vector" 4 pages including 6 photos. "Il RAF Museum si amplia" one page including 4 photos.

**Aprile 4/2004** (100 pages) "Il museo storico dell'aviazione de Yskov" 2 pages including 8 photo of Czech a/c (MiG-15, MiG-23, Su-7, Mi-8, Z-37, KT-04, & VR-3). "Esercitazioni USAF in Asia" 4 pages including 11 photos (Indian MiG-29, Su-30, & Mirage 2000, and USAF F-15).

## NETHERLANDS

**MODELBOUW IN PLASTIC** (IPMS-Nederland, c/o Rene Euhart, Bernadottestraat 133, NL-2131 SP Hoofddorp,; erhart@quicknet.nl).

**1/2004** (34 pages) "Een 'midlife update' voor Revell's 1:96 Saturnus V" 5 pages including 7 photos of the completed model. "Een blauwe vuurbal De Ryan FR-1 van Wings 48" 3 pages including 7 photos (2 in color) of the model in various stages of construction. "Trainers over Nippon" 3 pages on building the 1/48-scale T-4 including 5 photos (one in color) of the completed model. "Museo Storico" 2 pages with 7 photos of aircraft at an Italian museum. "Breguet Atlantic van Revell (1/72)" 5 pages including 9 photos of the aircraft and 6 photos of the completed model. "De 'Floatfire' Een Spitfire op drijvers in 1/72" 3 pages on building the Spitfire on floats including 8 photos of the model.

## SPAIN

**REVISTA ESPANOLA DE HISTORIA MILITAR** (Carlos Fresno Crespo, Alcaniz Fresno's S.A., C/Cromo 18-20, Poligono Industrial San Cristobal, 47012 Valladolid) 800 Pts.

**#46** (92 pages) "En el centerario de 'Cucufate' (2)" 3 pages including 6 photos and 2 color side-view drawings (Spanish Nationalist He 45 and Ro.37). "Los Breguet XIX Republicanos en el Norte (2ª Parte. Las operaciones aereas en Ovedoy Villareal de Alvav)" 8 pages including one photo, 3 maps, and 2 color side-view drawings (Dragon Rapide & Breguet 19). Poster Inserts: Blindado Medico de Ruedas (BMR-M1) Puesto de Socorro (Modernizado); Vehiculo de Reconacimiento de Caballeria (VRC) 'Centaurio'; Blindado Medio de Ruedas (BMR), Programa Radite; and Blindado Medio de Ruedas (BMR) 3560/51 Puesto de Mando. Insert: "Los medios Blindados de Ruedas en espana, Un siglo de Historia" (pages 177 = 192) 26 color photos (Mowag Pirana III and M-998 Hummer), a scale

4-view drawings, 2 color side-view drawings, and an index to both volumes.

## USA

**WWI AERO** (15 Crescent Rd., Poughkeepsie, NY 12601; 4 issues \$35.00 USA or \$40.00 overseas).

**#184 May 2004** (146 pages) "Pilcher 1889 Triplane" 5 pages including 7 photos. "Brumarescu's Colomba" 3 pages on a Romanian biplane with tractor, pusher, and lifting propellers. "Von Pischhof" 13 pages on pioneer aviator including 18 photos of his Autoplan. "The Gallaudet Story: Part 7 - 1915 Designs" 15 pages including 8 pages of drawings of proposed aircraft (2 floatplanes with the propeller in the middle of the fuselage, a seaplane with 2 pusher propellers, and a tractor biplane). "Drawings" 17 pages including 3 photos and drawings for the Parker-Purcell Tractor, Sutro-Hydro, Heinrich Tractor, Zeppelin CL.II (5 pages), and Halberstadt D-II (6 pages). "George A. Spratt Designs" 5 pages including 40 small photos. "Museums/Organizations" 5 pages including 13 photos and a list of the aircraft in the Kermit Weeks Collection. "First Flight Centennial" 6 pages including 16 photos. "Models" 8 pages including 34 photos. "Letters" 4 pages. "Publications" 16 pages including 5 photos and 2 scale drawings. "Electronics" 11 pages on Videos, CD-ROMs, 3-Views from Photographs, etc. including 25 photos.

**SKYWAYS** (15 Crescent Rd., Poughkeepsie, NY 12601; 4 issues \$35.00 USA or \$40.00 overseas.).

**#69 Jan. 2004** (84 pages) "Mew Gull at Reno" 8 pages including 13 photos and 2 pages of multi-view scale drawings with cross sections. "The Lockheed XP-38" 9 pages including 13 photos and a 3-view scale drawing. "A Doering B-24 Model Restoration" 7 pages including 12 photos. "The US Army Air Corps 'Bomber Mafia' of the 1930s" 5 pages including 2 photos. "Cockpits: Curtiss-Wright Export Falcon" 3 pages including 5 photos (one of a Falcon on floats in Colombian AF markings. "The National Air Tour 2003" 20 pages including 40 photos. "NASM Udvar-Hazy Center Preview" 3 pages including 8 photos, "The Scott Aircraft Engine" 3 pages including 7 photos. "Identification Unknown" 2 pages including 6 photos. "Reproduc-

tions and Restorations" one page including 5 photos. "Models" 3 pages including 5 photos. "Reviews" 3 pages.

**#70 April 2004** (84 pages) "First Around the World: The Epic Flight of the Douglas World Cruisers" 13 pages including 16 photos, a scale 3-view tone drawing, and a magnificent 2-page color cover painting of the World Cruisers 'Boston' and 'Chicago' flying over the 4-pipe destroyer USS Billingsley. "The Curtiss-Wright Model 24-B" 9 pages on the piloted flying-model used to test the configuration of the XP-55 tail-first Ascender including 8 photos and scale drawings of the 24-B in two different configurations. "The Aircraft Development Corporation and the ZMC-2 All-Metal Airship" 7 pages including 7 photos and 3 scale drawings. "Cockpits: Armstrong-Whitworth AW-15 Atlanta" 2 pages including 2 photos. "Curtiss-Wright XP-31 Swift" 17 pages including 13 photos (one a 2-page spread) and 6 pages of multi-view scale drawings of the Swift in various stages of its development. "Amundsen's Aircraft 1922-1925" 2 pages including 2 photos. "Identification Unknown" 2 pages including 5 photos of a/c identified and 3 photos of a/c to be identified. "Snyder Baby Bomber" 2 pages on one of the a/c identified in the previous section including 4 photos. "Bel Air Models" 2 pages including 3 photos and a list of their models. "Models" 4 pages including 5 photos of the AMA's National Model Aviation Museum. "Skyways Reviews" 3 pages.

**ESM 72** (Model-Aire International, PO Box 159, Olema, CA 94950. E-mail: maiesm72@aol.com. Web site: members.aol/Maiesm72/maiwebpg.html.) Quarterly. \$25.00 for four-issue volume. \$30.00 outside the USA. Back issues available at same price per volume.

**Vol. 7, No.3** (64 pages) "Aircraft by Kit Manufacturer" 36 pages from D&M Dane Planes to Fujimi. "Updates" 26 pages.

**Vol. 7, No.4** (64 pages) "Aircraft by Kit Manufacturer" 31 pages from Gagin & Son to Huma. "Updates" 27 pages.

# Enciclopedia de la Aviation Militar Espanola

Quirón Ediciones, C/Cromo P. 18-20, Polígono Industrial San Cristóbal, 47012 Valladolid, Spain. E-Mail: quiron@quironediciones.com. Web Site: www.quironediciones.com. Each 2.97 Euros.

**#77** (pages 1217-1232) "Bloch MB 210 Bn5" (continued) 5 pages including 3 photo, a color side-view drawing, and a scale 3-view drawing. "Bloch MB 220" one page including a color side-view drawing of 'F-AQHD'. "Blohm und Voss Bv 138C-1" 4 pages including a scale 3-view drawing and 3 photos and a color side-view drawing of 'X4 + H' in Luftwaffe markings. "Boeing 247" 2 pages including a scale 3-view drawing. "Boeing 281" 4 pages including 2 photos and 2 color side-view drawings of export 'Peashooter' in Spanish Republican service. Poster Inserts: Dewoitine D-372: Avión nº 12 de la Escuadrilla 'España' de la Aviación Militar Republicana. Potez 540: Avión 'A' del Grupo Potez de la Aviación Militar Republicana.

**#78** (pages 1233-1248) "Boeing 281" (continued) 3

pages including one photo and a scale 5-view drawing. "Boeing 299 (B-17) Flying Fortress" 8 pages including 4 photos, 5 color side-view drawings (3 USAAF and one Coastal Command a/c that crashed in Spain, and one captured B-17 in Luftwaffe markings), and a scale 3-view drawing. "Boeing 367/KC-97L Stratotanker" 5 pages including 3 photos and a color side-view drawing. Poster Inserts: Bell UH-1H-BF: Helicóptero 402-06 (Z.10B-51) del 402 Escuadron de Fuerzas Aéreas. Bell UH-1H-BF: Helicóptero 783-12 (HE.10B-39) del Ala de Enseñanza Nº 78.

**#79** (pages 1249-1264) "Boeing 367/KC-97L Stratotanker" (continued) one page with a scale 3-view drawing. "Boeing 707" 6 pages including 3 photos, 2 color side-view drawings, a scale 3-view drawing, and a list of all countries that used military 707s. "Boeing-Vertol 176/414-100 CH-47C/D Chinook" 9 pages including 8 photos, 2 color side-view drawings, a scale 3-view drawing, a table of

individual Spanish CH-47, and a list of all counties that used the CH-47.

Poster Inserts: Heinkel HE 70: Avion R-2-48 (101-1) de la Escuadrilla Regional de la Region Aerea. North American F.86F: Avion C-5-172 (201-9) del 202º Escuadron del Mando de la Aviacion Tactica.

**#80** (pages 1265-1292) "Breda Ba.25" 2 pages including one color side-view drawings and a scale 3-view drawing. "Breda Ba.26" 3 pages including 4 photos and 2 color side-view drawings. "Breda Ba.33" 3 pages. "Breda Ba.39" 2 pages including 4 photos. "Breda Ba.65" 18 pages including 25 photos, 4 color side-view drawings, a scale 3-view drawing, and listing of individual aircraft.

Poster Inserts: Casa 2.111J: Avion B.2H-78 (31-4), del 31º Regimiento de Asalto. Bleriot Spad S.51: Avion del Grupo de Caza de la Aviacion Republicana (Alcala de Henares).

## Aviation History Colouring Book

Ian K. Baker, 31A Mercer St., Queenscliff, VIC 3225, Australia. Obtainable in USA from M&M Model (Illinois); in Europe from Mushroom Model Publications (Herts) and Ian Allan Bookshop (London).

**# 57 P-40 Camouflage Special.** "The study of colours and markings of past times is inevitably a work in progress for everyone involved or even passingly interested. The emergence of new (or previously overlooked) information will inevitably compel reassessment and revision of what we hitherto believed." So says the author at the beginning of this new look at the camouflage schemes carried by the aircraft of the ubiquitous Curtiss P-40 family. This booklet, the latest in Ian Baker's misnamed "Aviation History Colouring Book", is divided (like Caesar's Gaul), into three parts: "The Significance of 'Cootie 2' - Continued" takes a further look at the importance of the US Army P-40C with the heretofore overlooked USAAF national insignia with the small center red spot. Two photos and port- and starboard-side drawings support the three pages of discussion. "Tomahawk & Kittyhawk Camouflage Colours for the RAF". I'll let the author handle this hot potato: "The colours Curtiss applied to its Tomahawks for RAF camouflage were not those later used on Kittyhawks. The colours Curtiss applied to its Kittyhawks were not exact matches for the British colours. The Temperate Land Scheme brown for Dark Earth was not the Desert Scheme brown. Several different underside colours were applied". This 3-page section includes FS, Methuen, and Pantone equivalents for the colors discussed. The third,

and longest section, "Camouflage on P-40s, Tomahawks & Kittyhawks - A General View" consists of 19 pages including 8 photos, three 3-view drawings (top, port and starboard) of camouflage patterns applied by Curtiss to Tomahawks (2 variations) and Kittyhawks, and 7 full-page side-view drawings (USAAF P-40C, USAAF P-40E (2), RAAF Kittyhawk, RAF P-40F in desert camouflage, USAAF P-40F in desert camouflage, and RAAF Tomahawk IIB).

I'll also let the author have the final word, "But, to those who want only so-simple, 'just tell me what to do', colour-by-number information, I can only say this is not the booklet for you."

However, this issue of the AHCB can be recommended to all modelers interested in the historical accuracy of their P-40 models. It is also recommended to anyone interested in a good detective story. You'll find it more compelling than an episode of TV's CSI.

**#52 Updates & Oddities 3.** "This is the third UPDATES & ODDITIES issue in this series of publications devoted to the colour schemes and markings of (mainly military) aircraft of bygone times. With almost double the number of pages of most 'regular' issues this one comes packed with photos, drawings, text and tables covering a wide-ranging array of topics spanning 1912 to 1945. None of the contents are to be readily found elsewhere, some appear for the first time, all are likely to be of interest to modelers, illustrators, camouflage & markings buffs, along with many others who have as interest in related aspects of aviation history."

This is the author's description of this 40-page eclectic collection.

Articles in this issue are: "RAAF Swordfish" 4 pages including one photo and a camouflage drawing. "Early British Serialling" 2 pages including 3 photos. "What Country was That?" one page with table of civil registration prefixes and one photo. "RNZAF Kittyhawks & Corsairs - Additional Information and Corrections" 5 pages including drawings of Kittyhawk camouflage. "RAAF Beaufighters Photos" one page with 2 photos. "Early RNAS Markings" 4 pages including 6 photos. "Leaves & Mud - NEI Army & Navy Aircraft Colours" 5 pages including 3 photos (Do 24K, Curtiss Hawk 75, Ryan ST, & Fokker T-IVA) and camouflage drawing of Do 24K. "Lockheed 14" 2 pages with 3 photos of civil 14s. "Interesting Liberator Colours" 5 pages including 3 photos and one side-view drawing of unusual USAAF B-24s. "Colours of Japanese Derelicts" 3 pages including 2 photos. "RFC Night Fighter Roundels" 2 pages including 3 photos. "Imperial Japanese Army Fiats - A Rather Exotic Subject" one page with 3 photos of Japanese BR.20s.

In addition to these articles, there are numerous paragraphs updating and correcting information provided in previous issues of Ian K. Baker's Aviation History Colouring Book. This entire series is highly recommended to everyone interested in well-researched information on camouflage and markings not usually found in commercial publications.

## Senta a Pua! DVD

**Senta a Pua!** A Aviação de Caça do Brasil na Segunda Guerra Mundial. 2 DVD discs in Portuguese with English, Spanish, and Italian subtitles.

Brazil was the only Latin American country during WWII to send troops to fight in the European Theatre of Operations. One of these units was the 1º Grupo de Aviação de Caça (1ºGAVCa) which arrived in Italy in October 1944 to serve with the 350<sup>th</sup> Fighter Group USAAF. Flying P-47 Thunderbolts, they arrived too late to participate in any air-to-air fighting, but they took parts in many dangerous ground attacks harassing the retreating Germans, losing on average three aircraft per month.

Senta a Pua, roughly translated as 'Hit them Hard', is the motto of the Brazilian First Fighter Group. Their unit badge, familiar to modelers (see Decal Review in the issue of SAFO), consists of a pistol-packing ostrich standing on a white cloud against a flak-filled red sky. [Ed: The ostrich is an African native. Its South American equivalent is the rhea. However, the bird on the badge is definitely an ostrich. The origin of the badge is explained on the DVD: While training in Panama, the Brazilian airmen, devouring everything they could eat and with their white caps, reminded the Americans of ostriches - thus the name, which was subsequently adopted as the unit's emblem. On the DVD, the

Brazilian airman who drew the ostrich explains how he used one of his fellow airmen as the model for the face of the ostrich and he shows a photo of his friend. The resemblance is remarkable. The 1ºGAVCa is often referred to as the 'Jambock' Squadron. The origin of this name was explained to me by one of our Brazilian friends, Sergio dos Santos: "The Portuguese name for ostrich is 'avestruz', as in the title of the book, *Avestruzes nos céus da Itália* (Ostriches in the Italian Skies). 'Jambock' is not a Portuguese word. As explained in Rai Moreira Lima's book, *Senta a Pua*, when the 1ºGAVCa received their Avestruz badge, someone in the 350<sup>th</sup> Fighter Group assumed it was a South African squadron and gave it the call sign 'Jambock'. 'Sjambok' is the name of a South African whip made from rhinoceros or hippopotamus hide, but the call sign was written in the 'American' way as 'Jambock'. Its amazing what you learn being a member of the SAFCH. But, back to the review of the DVD.]

Disc 1 is devoted to the "Film" (112 minutes) and the Director's Comments. The "Film", which won many cinematic prizes in Brazil, consists of interviews with veterans complimented with black-and-white still and motion pictures and color digital images of those events not captured on film. These interviews describe how the sinking of Brazilian

ship by German submarines led to the decision to offer the 1ºGAVCa to help the Allies. (The Brazilian military is credited with sinking one U-Boat off Rio de Janeiro.) The story continues with the training of the unit in Panama and its transfer to battle front in Italy. The veterans describe their missions attacking Germans in the Po Valley. Of special interest are the stories of the pilots shot down over enemy territory and their experiences as either a POW or their successful escape. The real stars of *Senta a Pua* are the veterans, but their beautiful P-47 Thunderbolts almost succeeds in upstaging them.

Disc 2 includes interviews cut from the final version of the film, motion pictures of various ceremonies attended by the 1ºGAVCa, trailers for theater and TV, an interminably-long sequence of Gun-Camera films, and a List of the Veterans.

*Senta a Pua!* Is highly recommended to anyone interested in Latin American aviation, all Thunderbolt fanatics, and to anyone building a collection of aviation DVDs.

[Ed: one copy of *Senta a Pua* is available through the SAFCH Sales Service for \$25.00. First come, first served.]

## BATAILLES AERIENNE

Lela Presse, 29 rue Paul Bert, 62230 Outreau, France. E-Mail: Lela.presse@wanadoo.fr. Web Site: www.avionsbateaux.com. Four issues 32 Euros.

**Leningrad: Combats Aeriens d'un Siege Interminable. Batailles Aeriennes #27.**

Although this volume has nothing on small air forces, it is done to the usual excellent Batailles Aeriennes style and will, therefore, be of interest to all serious students of WWII aerial combat. In its 80 pages are some 90 well-reproduced photos from both German and Soviet sources. Most of these

photos are of aircraft in flight and on the ground, but ground activities and equipment are not neglected. Color illustrations consist of a 4-view drawings of MiG-3 and 12 side-view drawings [I-15bis (2), Il-2, Lagg-3, DB-3, MiG-3, I-16 (2), Bf 109F (4)]. There are 6 pages of tables listing the order of battle for both sides, mission undertaken, and losses experienced. The 2-page "Uniforms & Tenues de Vol" consist of color drawings of 5 Luftwaffe and 5 Soviet airmen in flying uniforms. The modeling section consists of 3 pages with 5 color photos of 1/72-scale Italeri kit of the Bf 109F-

2 finished as 'yellow 4' as flown by Lt. Hans Beisswenger, Staffelfkapitan of 6/JG54, in July 1941.

I'm continually amazed that the editor of this series can continue to come up with photos and color drawings of the aircraft that actually took part in the events described. They never fall back on the photo that "represents the type of aircraft" that participated in the action. If you haven't seen a copy of the Batailles Aeriennes series, you owe it to yourself to obtain one and see what a well-researched work looks like.

### -wants&disposals-wants&disposals-wants&disposals-wants&disposals-wants&disposals-wants&disposals-wants&disposals-

Wanted "I am continuing to look for information on the WWII-era Indian National Air Force, Burma National Air Force, and the planes that the Japanese provided Philippine President Laurel. I know it's out there somewhere (probably in Hindi, Burmese, Tagalog or Japanese). Correspondence with similarly-interested enthusiasts would be welcome."

John Berger (SAFCH #1389), PO Box 23109, Honolulu, HI. 96823, USA. E-Mail: regreb@lava.net.

Wanted "I've a question for our readers, but first there's a story to tell. I recently bought the Airfix 1/72-scale Westland Scout both out of nostalgia (the amount of detail impressed me when I built it about thirty years ago) and because of its small-air-force potential (especially if converted to a Wasp). The conversion turned out to be more difficult than I expected, and investing £20 in the Airwaves conversion set would be a last resort. So back to the Internet. There I found information about two Scouts used by Australia, but the available photos leave much to be desired. So, I'm looking for information about the markings of these Australian choppers? As far as I can see from the photos they were Dark Blue overall with White serials and 'Navy' on the tail boom. However, the roundels are not clear on the photos - the Kangaroo type is my guess. Can any readers help?

Nils Treichel (SAFCH #1467), Grosser Platz 4, 27432 Bremervoerde, Germany.

**Merlins over Malta.** "Want to help make History? Help us fly a Spitfire and Hurricane from the United Kingdom to Malta in September 2005. Why? To commemorate the 60<sup>th</sup> Anniversary of the end of World War 2. Honor the citizens and servicemen who helped Malta survive 157 days of continual bombardment. Web Site: www.merlinsovermalta.com."

USA Project Representative: John Grier, 3257 Squaw Valley Dr., Colorado Springs, CO 80918, USA. E-Mail: Phone: 719-536-0438. megrier@aol.com

**Closeout Sale: Armed Forces Handbooks Balkan Battles and French Arms** are on sale at the closeout price of \$20.00 each (plus postage). These huge hardbound books [670 pages and 830 pages (3 lbs and 4 lbs) respectively] initially sold for \$50.00 each. They are being closed out on the retirement of the author, Ron Tarnstrom. **Balkan Battles** covers the military histories of Turkey, Greece, Albania, Bulgaria, Yugoslavia, and Romania. **French Arms** includes the military histories of France, Belgium, and Luxembourg.

These books can be obtained from the SAFCH

Sales Service.

**Sale:** All cloth squadron patches listed in the SAFCH Sales Service are on sale, reduced from \$5.00 to \$1.00 each.

**Wanted:** "Scale drawings and detail drawings of the Fokker Super Universal, designed in the USA and built and operated both in the USA and Canada. This information is needed by a manufacturer who is considering making an injection-molded 1/72-scale kit of the Super Universal."

Sid Napier (SAFCH #1521), Burgstrasse 2, CH-4107 Ettingen, Switzerland. snapier@freesurf.ch

**For Sale:** "I just bought the complete eight-volume set on Peruvian aviation. So I'm interested in selling the two volumes I already have: Volumes 1 and 2 of **Historia Aeronautica del Peru** for \$60.00 each. I'm open to trades.

Jay Miller (SAFCH #732), 612 Hasten Court, Ft. Worth, TX 76120, USA. acrofax@sbcglobal.net

**For Sales:** "Anyone interested in buying what is arguably the finest privately owned aviation library in the world? Weighs in at about 25 tons and consists of about 7,500 volumes (dating to 1765); nearly 100,000 periodicals; over 300,000 photographic images; and over eighty four-drawer filing cabinets worth of general reference materials. All of that is in addition to a miscellaneous memorabilia and artifacts collection (Norden bomb sight, pieces of rare aircraft including the Spirit of St. Louis and von Richthofen's Driedecker, a philatelic collection, and over a hundred high-end desk models). Recent appraisal came in at \$4.25 million! Let me know. Finders fee is available!

Jay Miller (SAFCH #732), 612 Hasten Court, Ft. Worth, TX 76120, USA. acrofax@sbcglobal.net

**Information Wanted:** "I am working on the history of the Ruthenian Air Force. In 1938, Hungary invaded Slovakia and annexed the southern part of Ruthenia (the tail-end of Czecho-Slovakia) along

with its capital Uzhgorod. In 1939, the remaining part of Ruthenia declared independence. A short time later, Hungary took possession of the rest of the country that is also known as the Carpatho-Ukraine.

"I am also looking for information on the following: Polish AF under Germany, Austro-Hungary, & Russia; White Russia AF & Central Lithuanian AF under Poland; and Lithuanian Minor AF, Duchy of Lithuania AF, & Duchy of Poland AF under Russia. I have some information about these and I'm now attempting to connect it into some kind of worthwhile form.

Douglas Breveglieri (SAFCH #612), 99 Atlantic St., Bridgeport, CT 06604, USA.

**For Sale:** "I am interested in selling some of my original painting of aircraft, armored vehicles, ships, trains, uniforms, cars, etc. These are A3 size in acrylic oils and India ink on Bristol board. Prices range from 450 Euros/US\$ for side-views, to 900 Euros/US\$ for 3-views, to 1500 Euros/US\$ for cutaways. For details see my Web Site: <http://unicorn.artshop.monsite.wanadoo.fr> Hubert Cance (SAFCH #809), 56 Bd. E. Lintilhac, 15000 Aurillac, France.

**Information Wanted:** "In SAFO #108, a review of the 'Hind' decals mentions Ukrainian helicopters used with the UN mission in Eastern Slavonia in 1996. It reminded me that I had an emblem for the Ukrainian 20<sup>th</sup> Helicopter Detachment with the UN. I have a feeling that this emblem is for a deployment after the one mentioned, but I'm not sure. Attached are the uniform emblems (reduced to 50%) worn by Ukrainian Helicopter Detachment personnel on peacekeeping missions. On the left is the emblem of the 14<sup>th</sup> Detachment with KROF (Kosovo Force in Serbia) and on the right the emblem of the 20<sup>th</sup> Detachment with the UN mission unspecified. Do any readers know which UN mission the 20<sup>th</sup> Detachment served in?

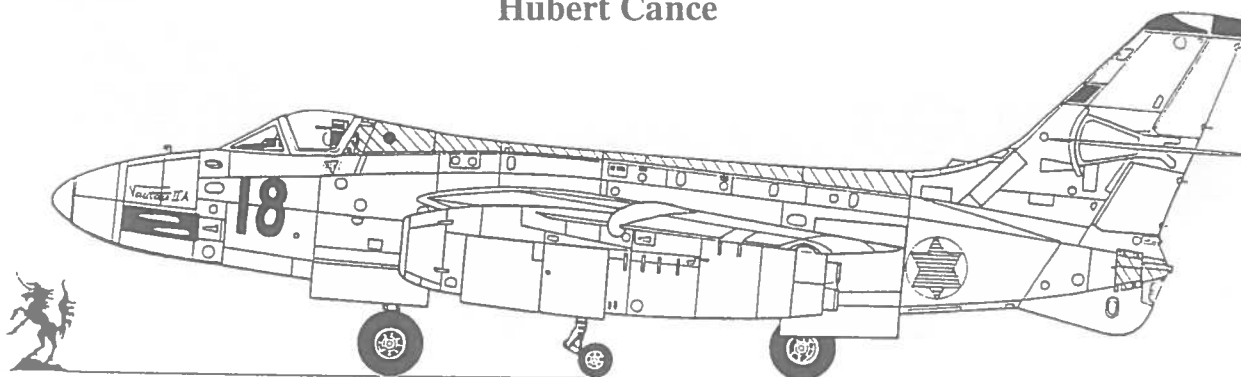
Ted Koppel (SAFCH #118), 3506 Belfont Dr., Ellicott City, MD 21043-4318, USA.



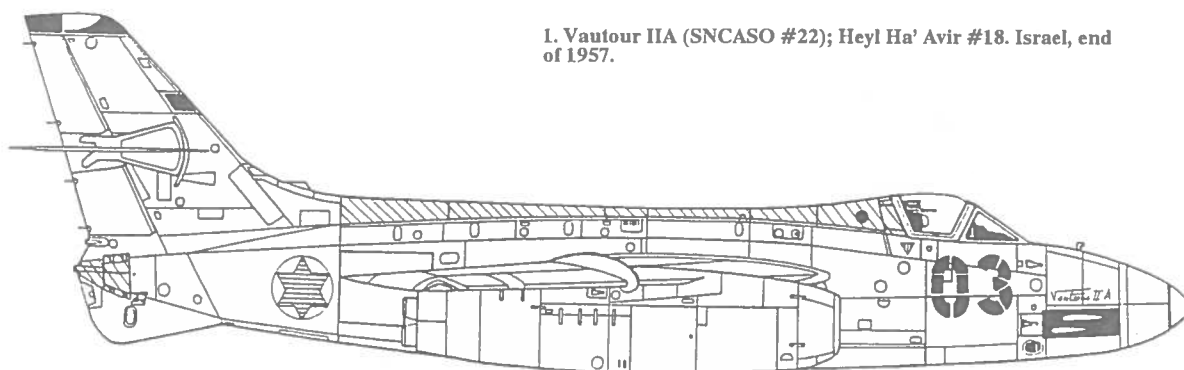


# Israeli Vautours

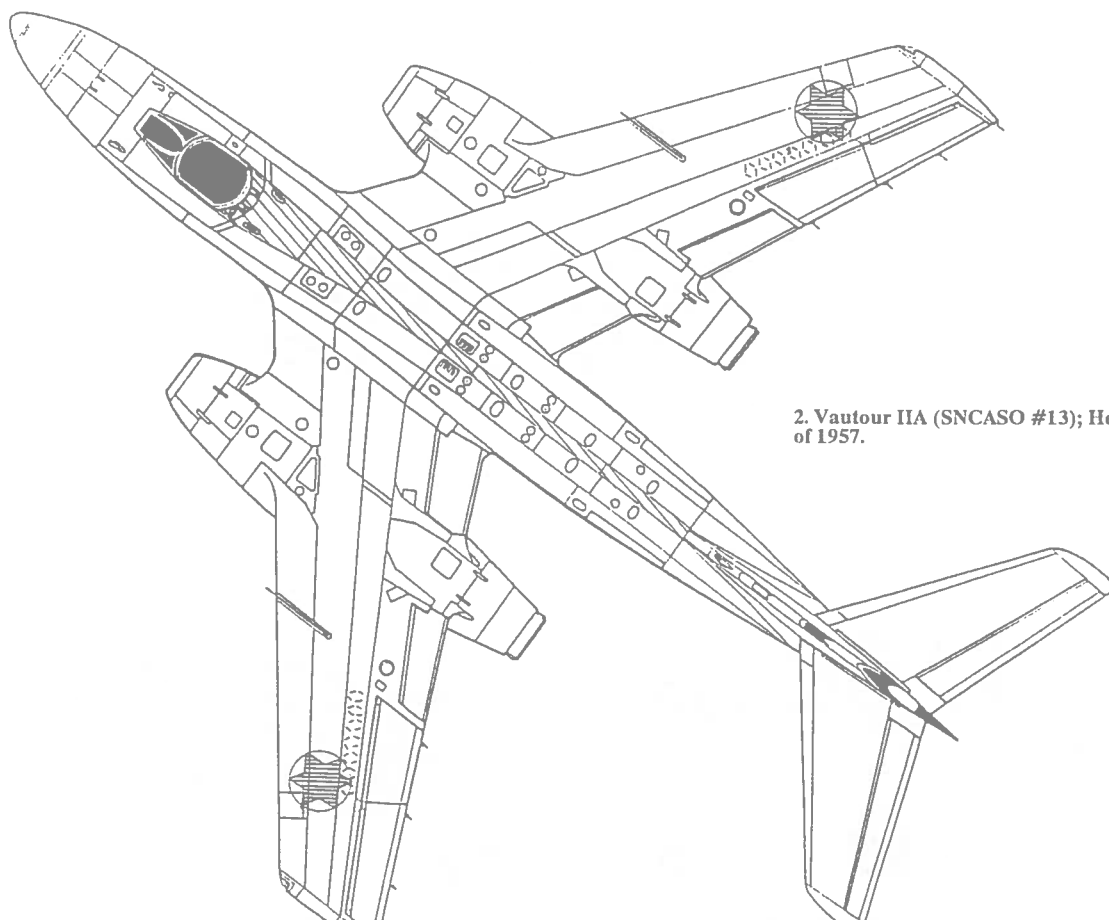
Hubert Cance



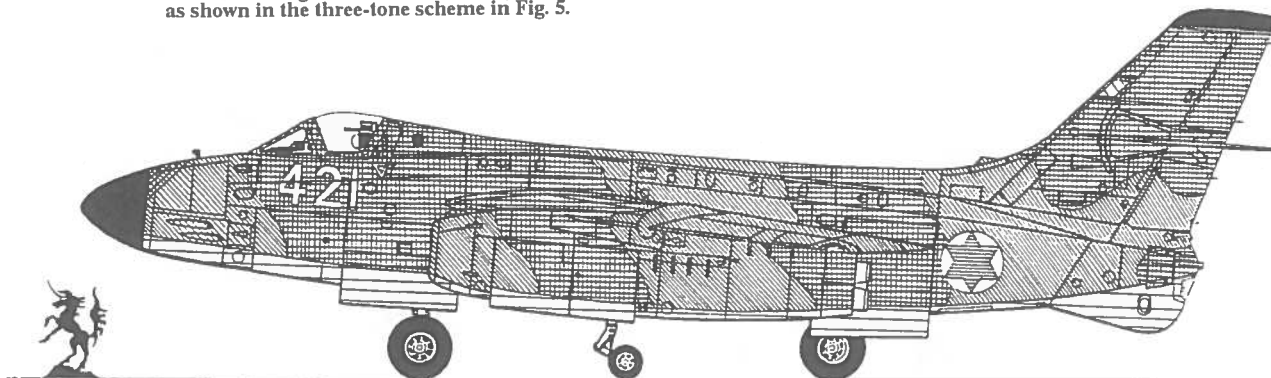
1. Vautour IIA (SNCASO #22); Heyl Ha' Avir #18. Israel, end of 1957.



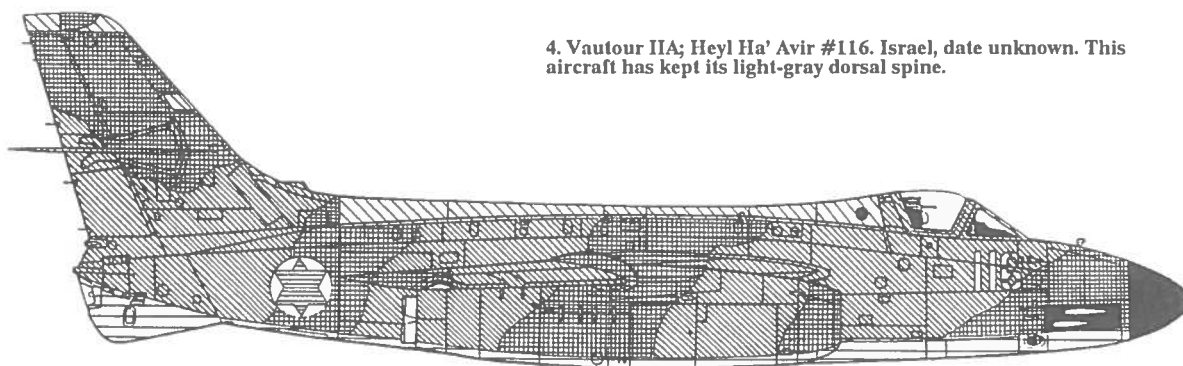
2. Vautour IIA (SNCASO #13); Heyl Ha' Avir #03. Israel, end of 1957.



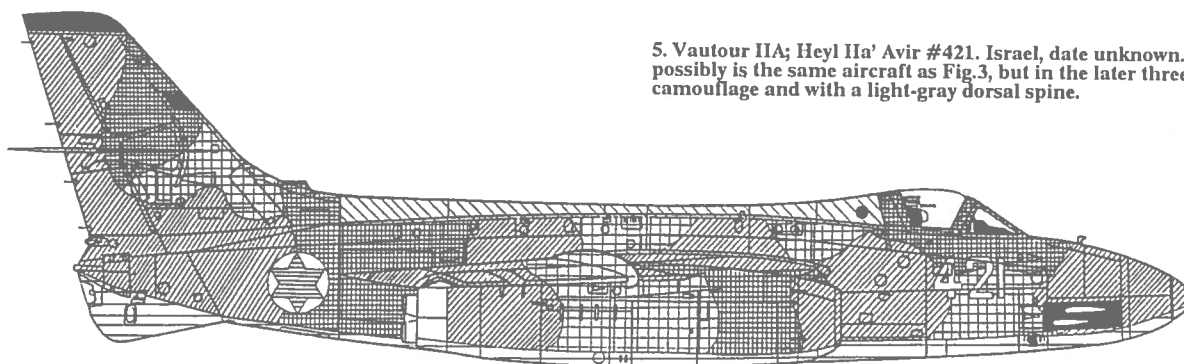
3. Vautour IIA; Heyl Ha' Avir #421. Israel, date unknown. Aircraft is shown in the early blue-gray and dark-earth two-tone camouflage scheme. Presumably, this is the same aircraft as shown in the three-tone scheme in Fig. 5.



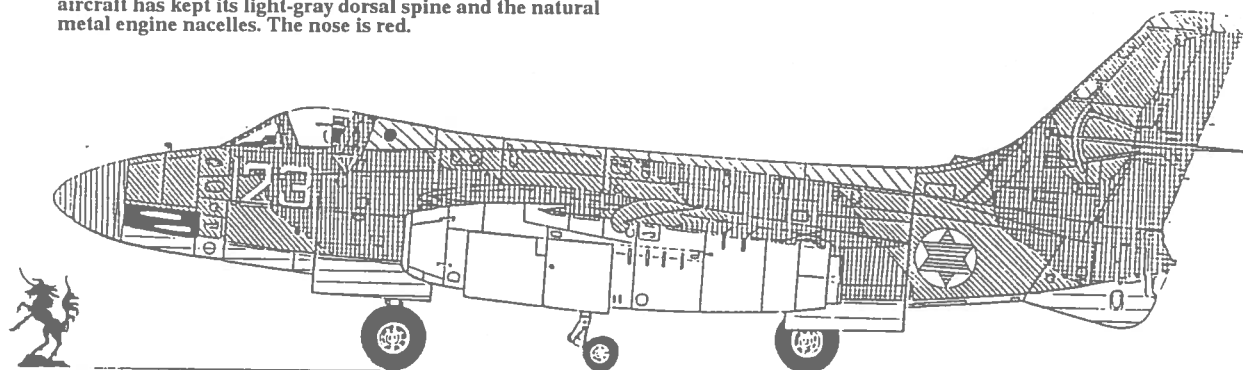
4. Vautour IIA; Heyl Ha' Avir #116. Israel, date unknown. This aircraft has kept its light-gray dorsal spine.



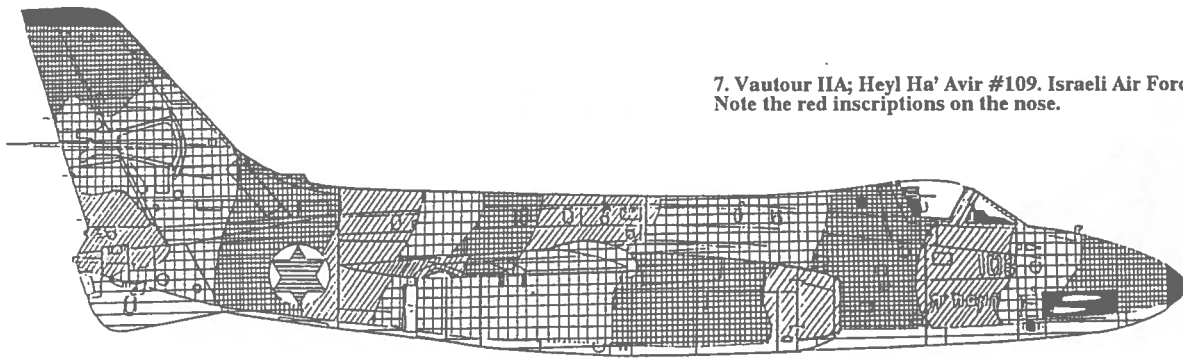
5. Vautour IIA; Heyl Ha' Avir #421. Israel, date unknown. This possibly is the same aircraft as Fig.3, but in the later three-tone camouflage and with a light-gray dorsal spine.



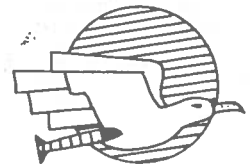
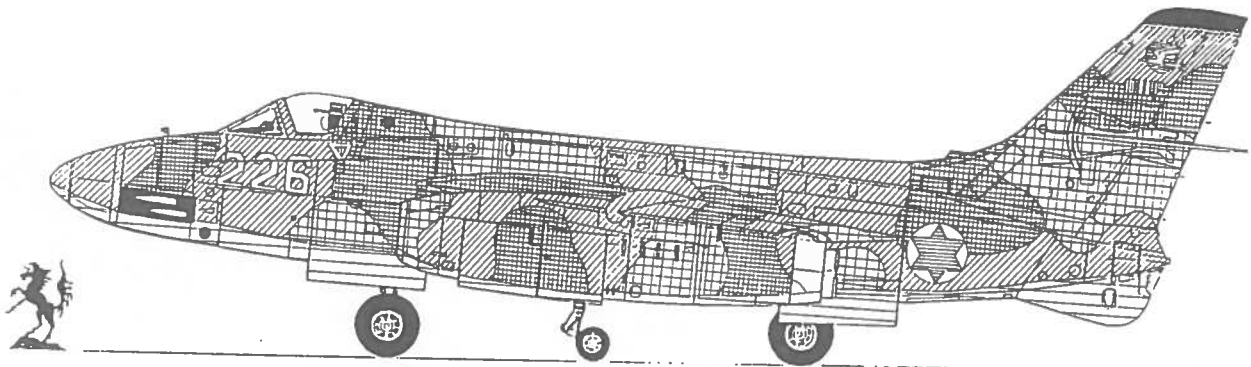
6. Vautour IIA; Heyl Ha' Avir #23. Israel, date unknown. This aircraft has kept its light-gray dorsal spine and the natural metal engine nacelles. The nose is red.



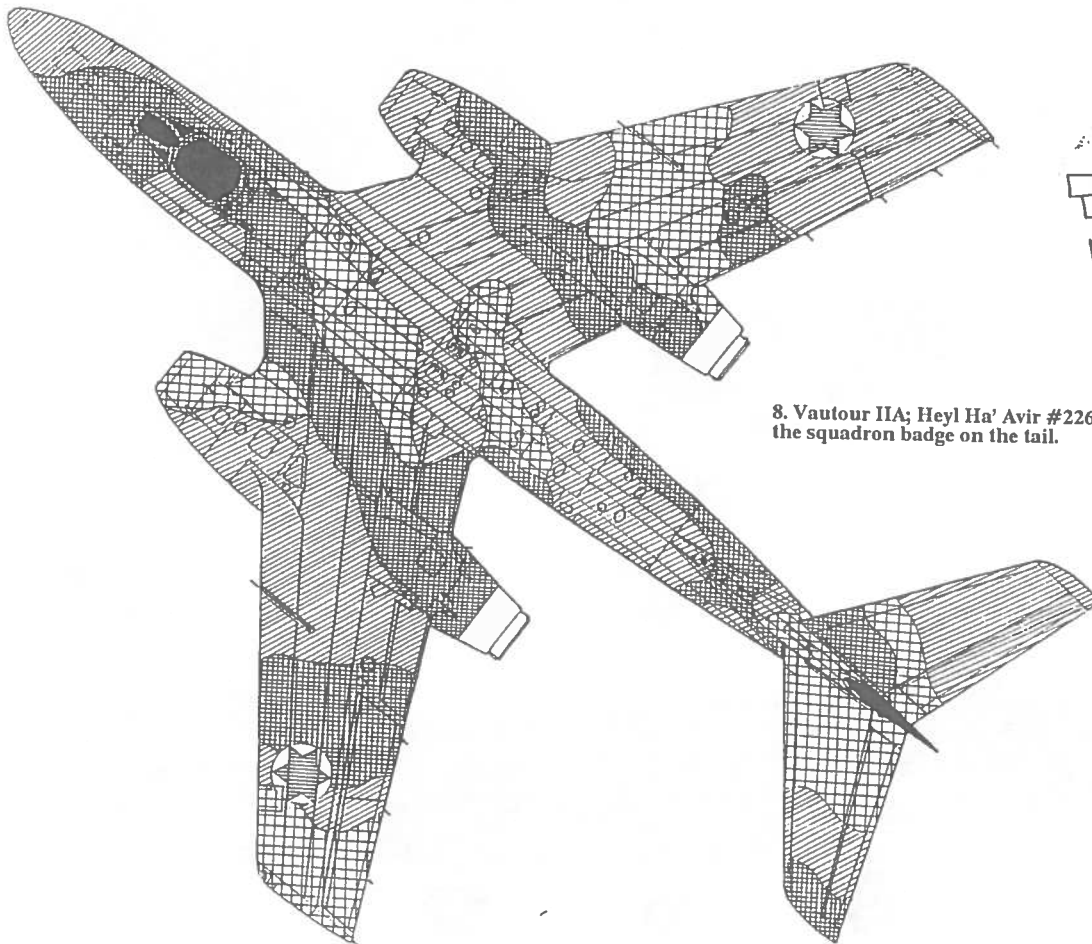
7. Vautour IIA; Heyl Ha' Avir #109. Israeli Air Force Museum.  
Note the red inscriptions on the nose.

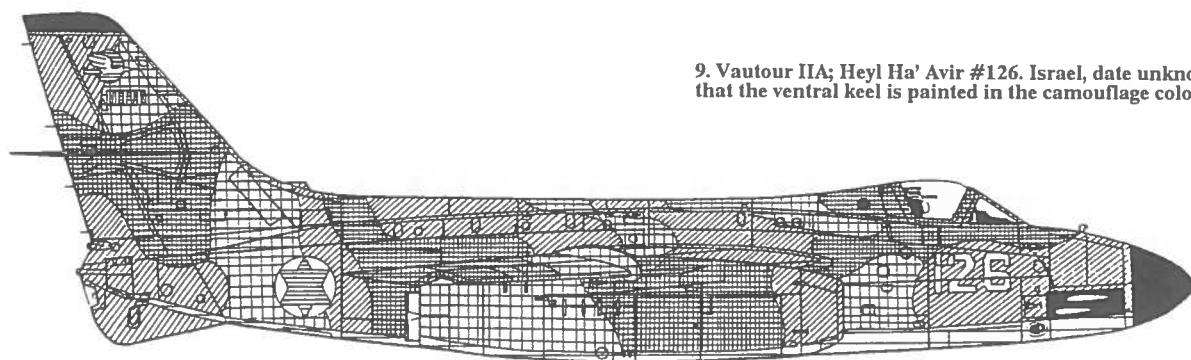


ה'תשנ"ז

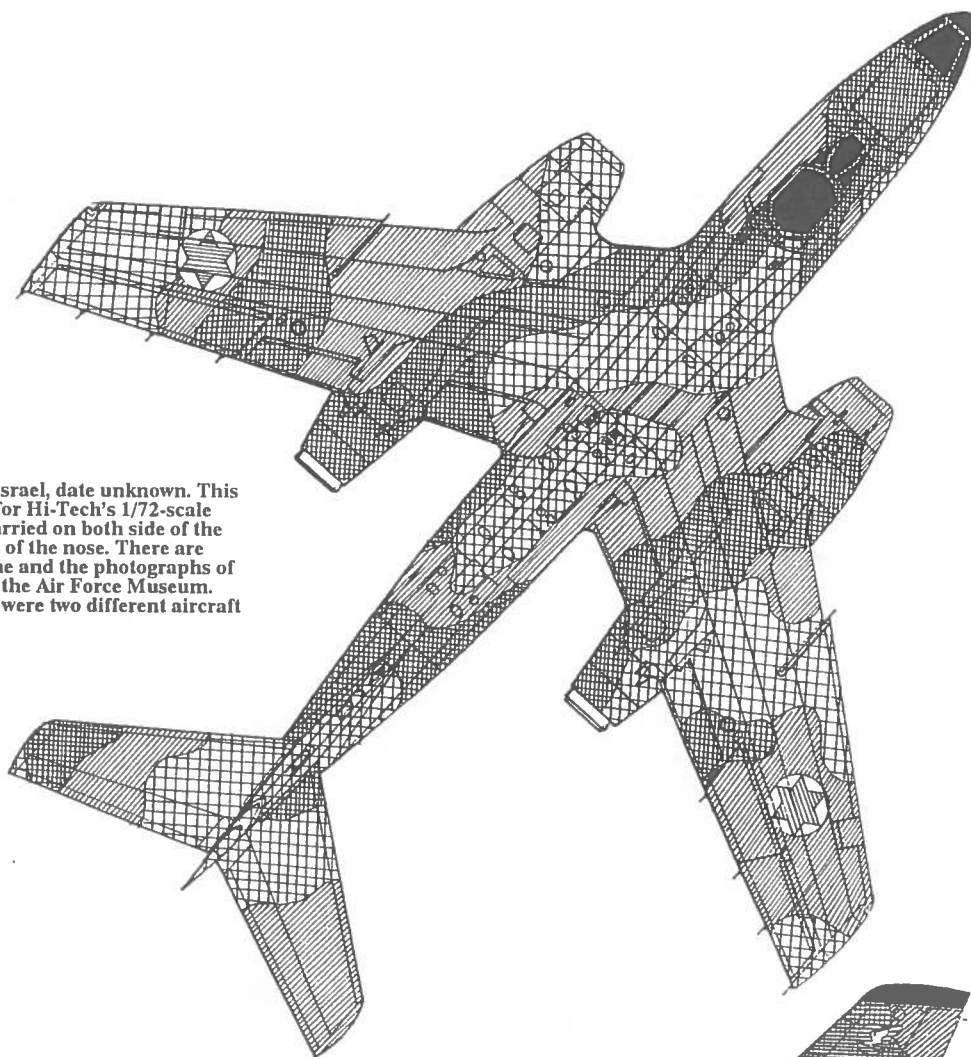


8. Vautour IIA; Heyl Ha' Avir #226. Israel, date unknown. Note  
the squadron badge on the tail.



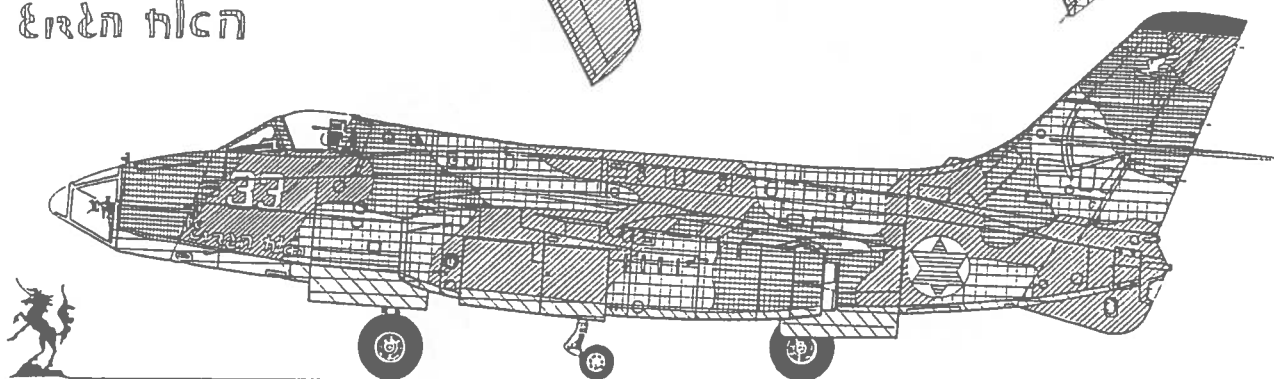


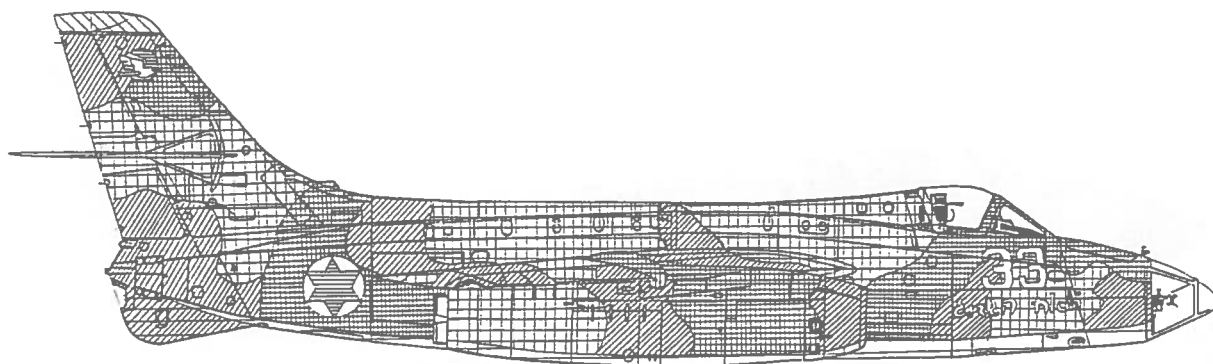
9. Vautour IIA; Heyl Ha' Avir #126. Israel, date unknown. Note that the ventral keel is painted in the camouflage colors.



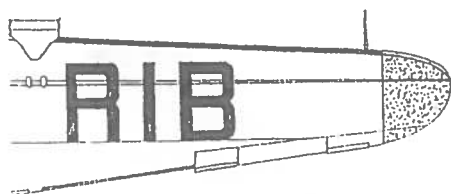
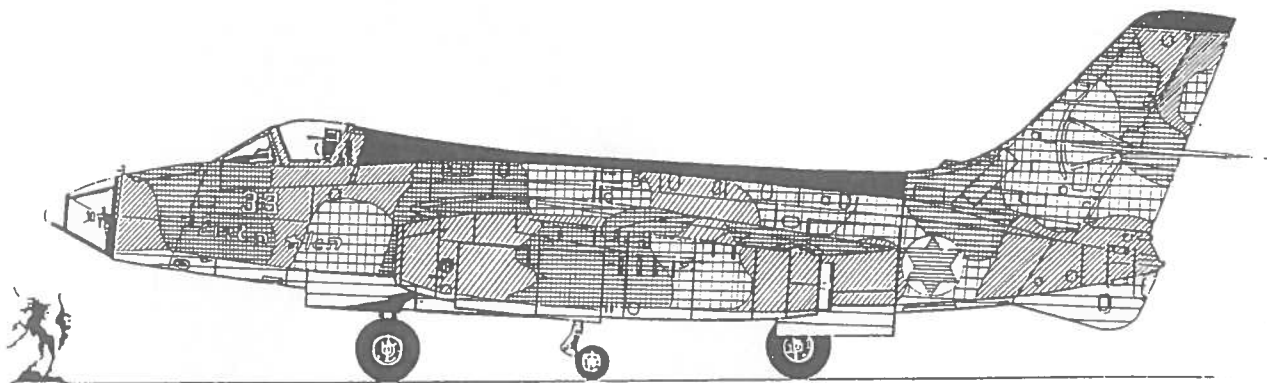
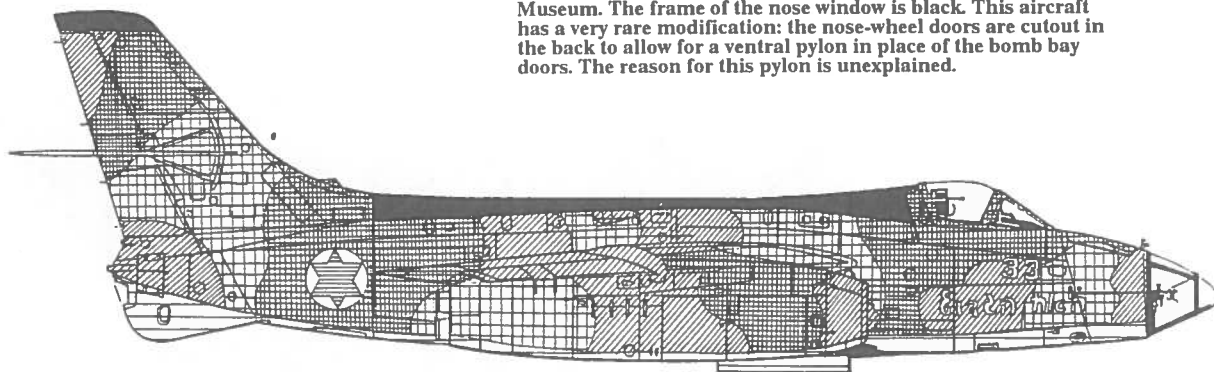
10. Vautour IIB; Heyl Ha' Avir #33. Israel, date unknown. This is the one shown in the instructions for Hi-Tech's 1/72-scale resin kit. The squadron insignia is carried on both side of the tail and the inscription on both sides of the nose. There are many differences between this scheme and the photographs of an aircraft with the same number in the Air Force Museum. (See Fig. 11.) Is it possible that there were two different aircraft with the same number?

העל חיל

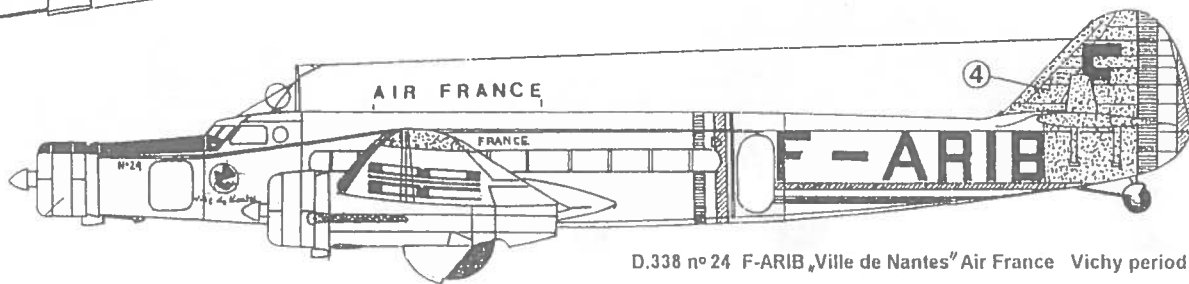




11. Vought IIB; Heyl Ha' Avir #33. Israel, date unknown. This is the color scheme carried by the aircraft in the Air Force Museum. The frame of the nose window is black. This aircraft has a very rare modification: the nose-wheel doors are cutout in the back to allow for a ventral pylon in place of the bomb bay doors. The reason for this pylon is unexplained.



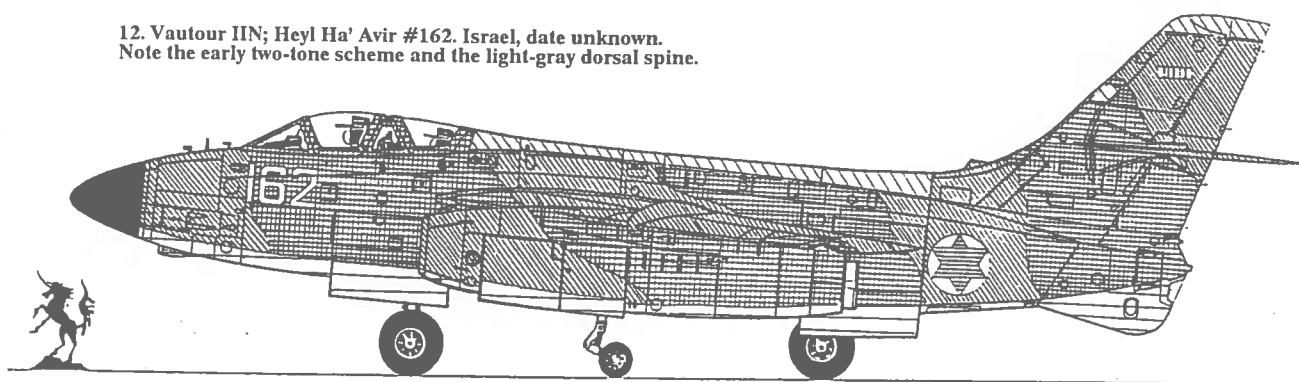
**DEWOITINE 338**



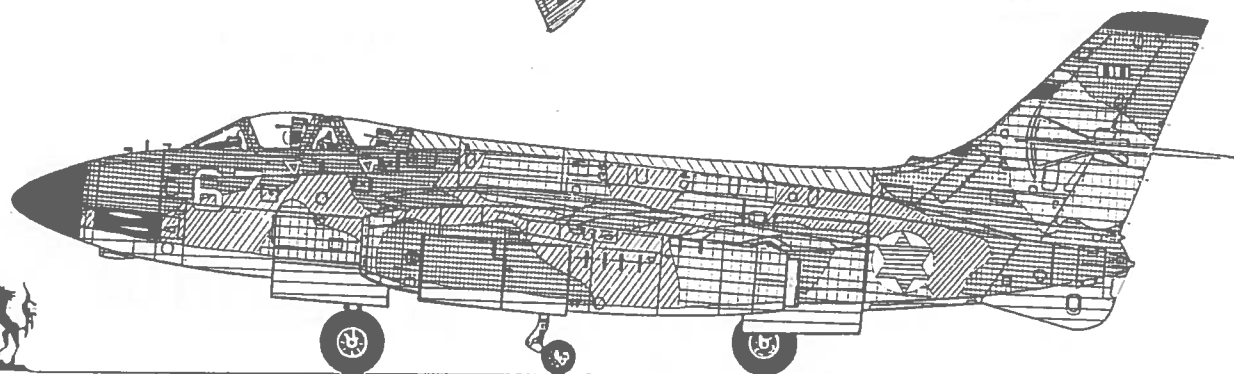
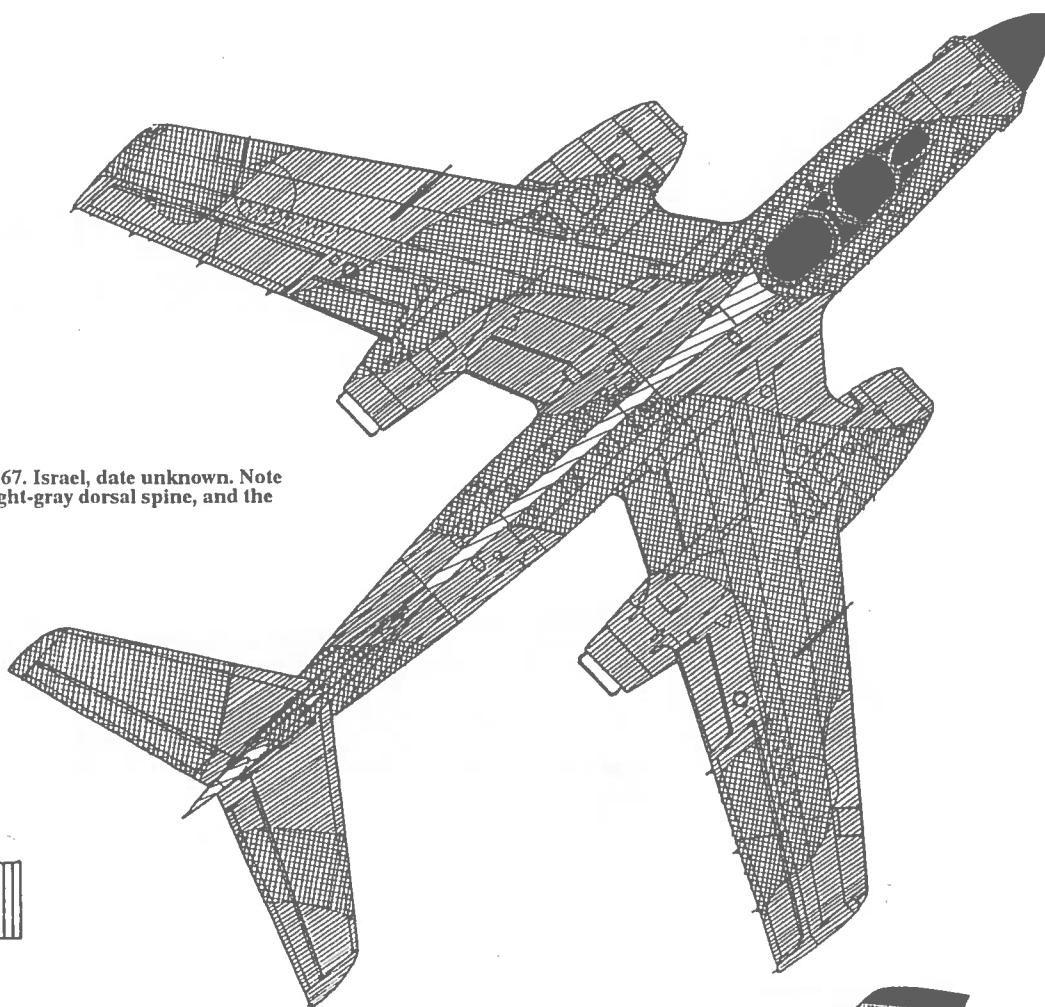
D.338 n° 24 F-ARIB „Ville de Nantes” Air France Vichy period

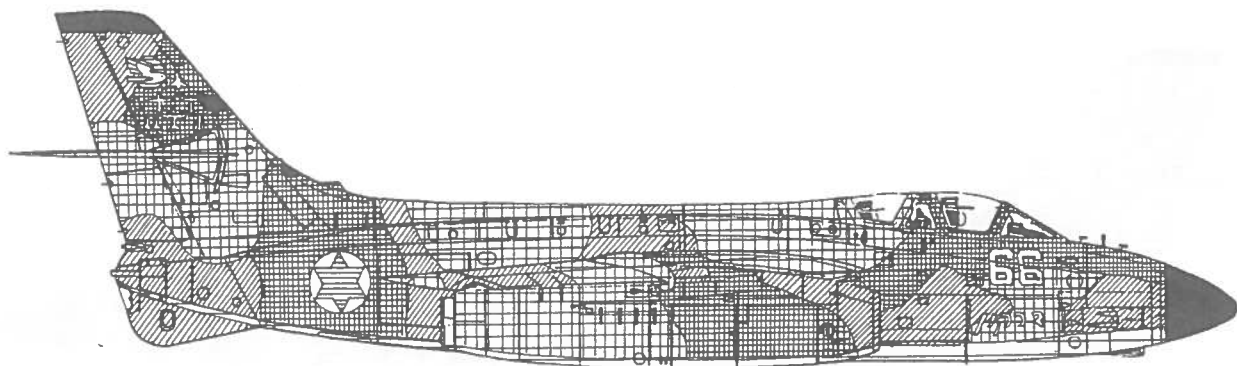


12. Vautour IIN; Heyl Ha' Avir #162. Israel, date unknown.  
Note the early two-tone scheme and the light-gray dorsal spine.

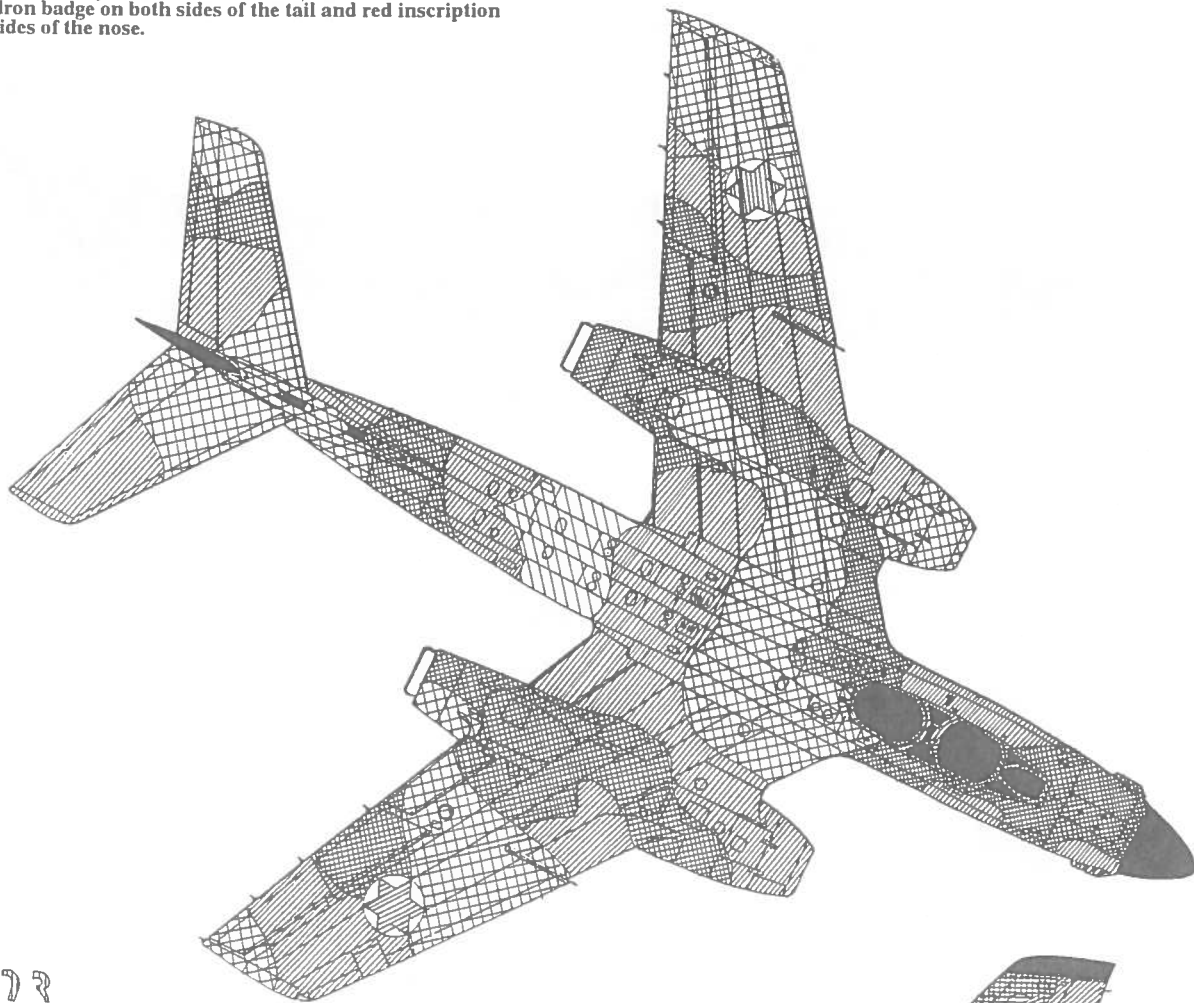


13. Vautour IIN; Heyl Ha' Avir #67. Israel, date unknown. Note  
the early two-tone scheme, the light-gray dorsal spine, and the  
absence of gun deflector panels.

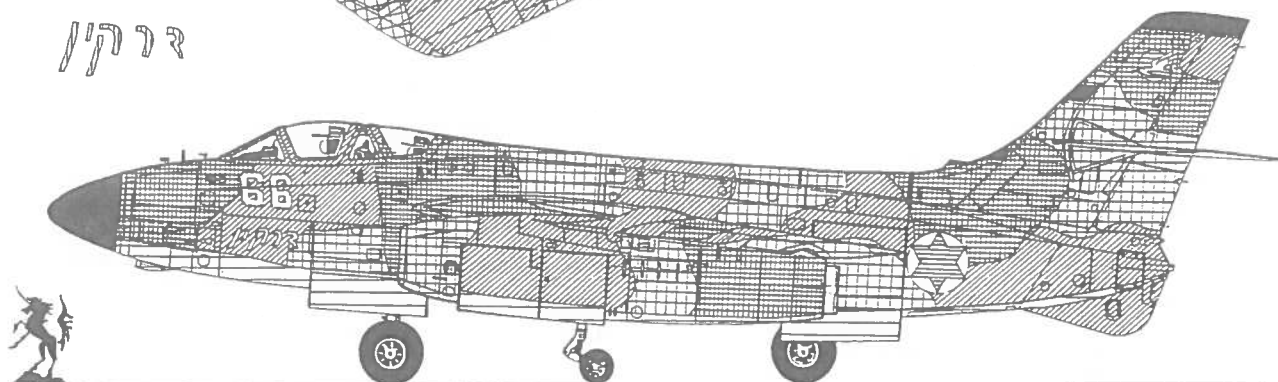


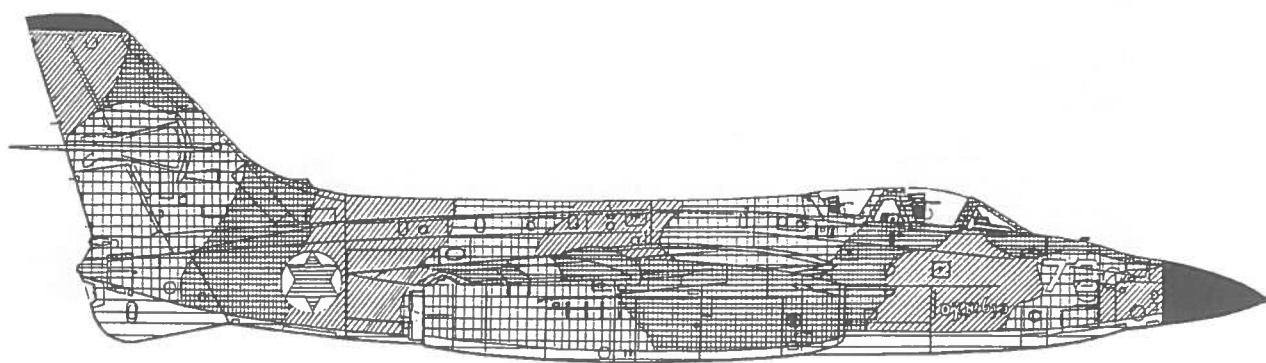


14. Vautour IIN; Heyl Ha' Avir #66. Israel, date unknown. Note the squadron badge on both sides of the tail and red inscription on both sides of the nose.



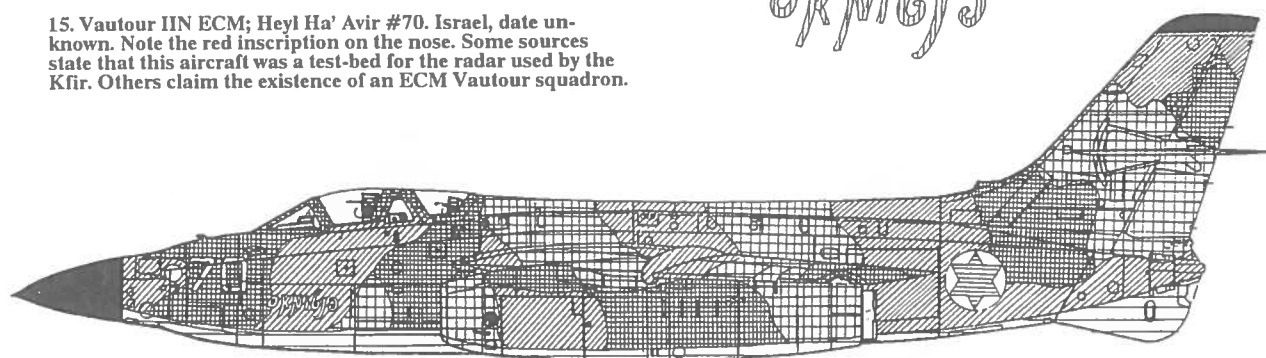
גורקין



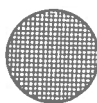


15. Vautour IIN ECM; Heyl Ha' Avir #70. Israel, date unknown. Note the red inscription on the nose. Some sources state that this aircraft was a test-bed for the radar used by the Kfir. Others claim the existence of an ECM Vautour squadron.

0KNI672



light blue



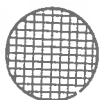
dark earth



medium green



dark blue gray



sand

## General Notes

1. The Israeli Vautours carried three different color schemes: (a) First, natural metal overall. (b) Then, a two-tone camouflage scheme. (c) Finally, a three-tone camouflage scheme.

2. These latter two schemes were usually accompanied with light-blue undersides, but it is possible that some retained their natural metal undersides.

3. Some of the camouflaged Vautours kept the tips of the engine nacelles in natural metal and a few even kept the entire engine nacelles in natural metal.

4. The gun deflector plates on camouflaged aircraft were usually left in natural metal, but a few had them painted black.

5. The nose was sometimes black and sometimes red. On radar-equipped aircraft the fiberglass nose started out a cream color, but

was later painted black turning brownish with weathering.

6. The dorsal spine was usually light gray on natural metal aircraft. On camouflaged aircraft, it could be either light blue, black, or over painted in the camouflage colors.

7. The antennae on the tail were usually light gray or black, but on museum aircraft they were over painted with the camouflage colors.

8. Some natural metal Vautours appear to have the ventral keel painted light gray, but since in photographs that part of the aircraft is usually in the shadows, it is difficult to be certain.

Hubert Cance (SAFCH #809), 56 Bd. E. Liniilhac, 15000 Aurillac, France.

# Meidagen 1940

## The Dutch Air Arms Defense Against the German Invasion: May, 1940

### Part One: Chapter 1 Vesting Holland

"Rustig en veilig gaan slapen"  
("Rest well and have a safe sleep")  
Minister-President De Geer  
Following Hitler's Assurance  
of Dutch Neutrality, 13 Nov 39

From its inception in 1913, the Dutch Army's *Luchtvaart Afdeling* (Aviation Division or LVA) was a direct reflection of the Dutch nation and its military. It was a small, peaceful organization, a token force designed to give Holland's historic neutrality some viability at an absolute minimum cost. While this arrangement was adequate for most times and its minimum cost helpful in the harsh, lean years of the worldwide Depression in the 1930s, it provided little deterrent in the face of Germany's increasing arrogance, belligerence, and aggression. The rise of Adolf Hitler (1933), the re-armament of Germany (1935), its occupation of the Rhineland (1936), and the annexation of Austria (March, 1938) led the adoption of a more serious approach to modernizing the Dutch air arm.

Consequently, on November 1<sup>st</sup>, 1938, the LVA was restructured into a wartime organization, given equal status to all other branches of the army, and was retitled the *Wapen der Militaire Luchtvaart* (Weapon of the Military Aviation although it was more commonly known only as the *Militaire Luchtvaart* or ML).

#### Strategy and Organizationa

The air arm's parent organization, The Netherlands *Veldleger* (field army) of 1940 was small and had not been engaged in combat since 1831. It consisted of only eight infantry and one light (cyclist) divisions, had little in the way of modern artillery, and no armor to speak of. Strategically, it was absolutely insufficient for defending the length of the Dutch-German border (over 200 miles/322 km in length) and the Dutch High Command knew this. The heart of the Dutch defensive plans, then, was based on the traditional defense of the Netherlands: the opening of the sluices in the dikes and flooding the lowlands, providing a water barrier behind which the *Veldleger* could fall after delaying the invaders long enough for the water to fill the broad channel (the Geld Valley) from the Zuider Zee (now the IJsselmeer) to the Lek River, length of about 37.5 miles (60km). With the south flank secure because of the tangle of three roughly parallel rivers the Lek, the Waal, and the Maas the small Dutch field army could concentrate on defending the narrow approaches across the flooded lowlands and thus protect the greater cosmopolitan area of Holland, including the industrialized areas and cities of Amsterdam, Rotterdam, and the capital, The Hague. This concept, embracing the provinces of Utrecht and North and South Holland was known as *Vesting Holland* or Fortress Holland.

Thus, the Dutch Army commander, General (Gen) H. G. Winkelman, planned to concentrate his defense between

the Zuider Zee and the Lek River behind the inundated Geld Valley with four divisions (II and IV Corps). This force would attempt to hold the line along the low, heavily wooded ridge that runs from the Zuider Zee to the Lek, from north of the town of Baarn to Rhenen in the south. Anchored at the bank of the Lek River on an imposing, fortified hill called the Grebbeberg, this main line of defense became known as the Grebbe Line. South of the Maas River he would deploy only a screening force (III Corps) of three divisions (the third being a collection of frontier battalions known as the Peel Division the Light Division was held in reserve in the rear.). These were to delay the German forces along the Grave-Peel-Weert line (called the Peel Line) and then fall back to the northwest across the Maas River.

Having paid close attention to the German surprise tactics used in the invasions of Denmark and Norway in April, Gen Winkelman had his reserve of two divisions (I Corps) stationed along the coast of Holland from the naval base at Den Helder to the Hook of Holland, guarding against seaborne landings along the coast and airborne assaults on or near the airfields around The Hague, Rotterdam, and Amsterdam. These airfields were reinforced with additional anti-aircraft batteries and machine guns and the runways were carefully littered with mines, iron stakes and other obstacles designed to deter an assault from the air. The Dutch forces had a total of only 355 first-rate anti-aircraft guns including 72 Vickers 75 mm and 46 of the excellent Bofors 40 mm guns, as well as 155 Oerlikon 20 mm pieces. While this was, like the rest of the army, insufficient to provide a comprehensive defense, concentration at the airfields, on the Grebbe Line, and at other strategic points would put up stiff resistance in key areas.

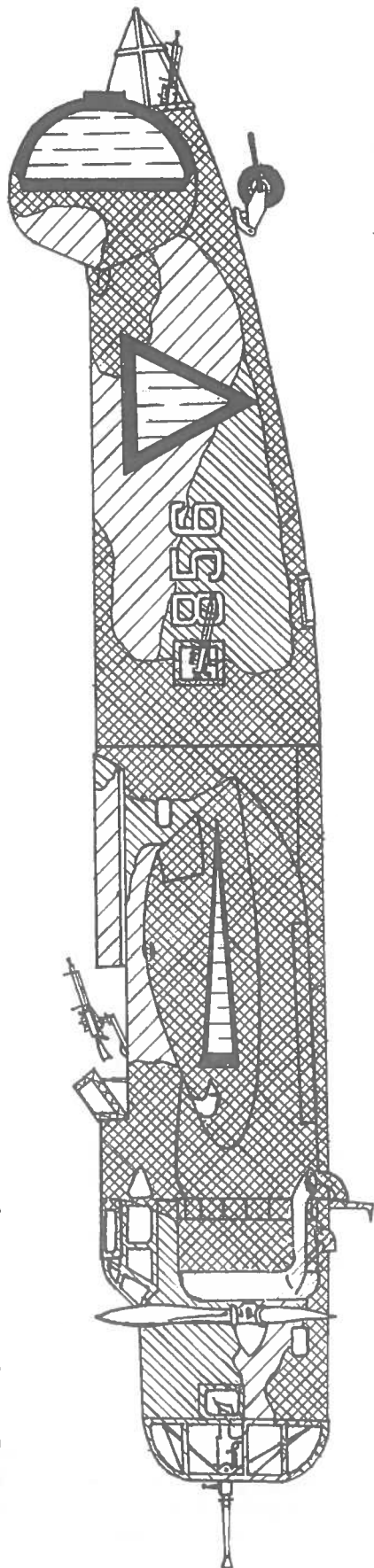
Air cover for the Netherlands and its *Veldleger* was provided by two of the ML's three air regiments. The 1<sup>st</sup> *Luchtvaart Regiment* (1.LvR) contained the strategic air elements and was assigned directly to the Military High Command. It consisted of the *Strategische Groep* (Strategic Group - one bomber and one long-range reconnaissance squadron) and a *Jachtgroep* (Fighting Group) containing the nation's air defense force of four fighter squadrons. Operationally, this latter force was subordinated to the *Commando Luchtverdediging* (Air Defense Command) which also included a brigade of anti-aircraft batteries, a regiment of searchlight sections, and the Voluntary Observer Corps. It was responsible for the air defense of the nation.

The 2.LvR was assigned directly to the *Veldleger* commander and provided tactical air support for the Dutch field army. It consisted of four *Verkenningsgroepen*

# AIRCRAFT OF 1e LUCHTVAART REGIMENT

## I GROUP ("Strategische Groep")

1e Afdeling ("BomVA") Fokker T.5 Bomber #856

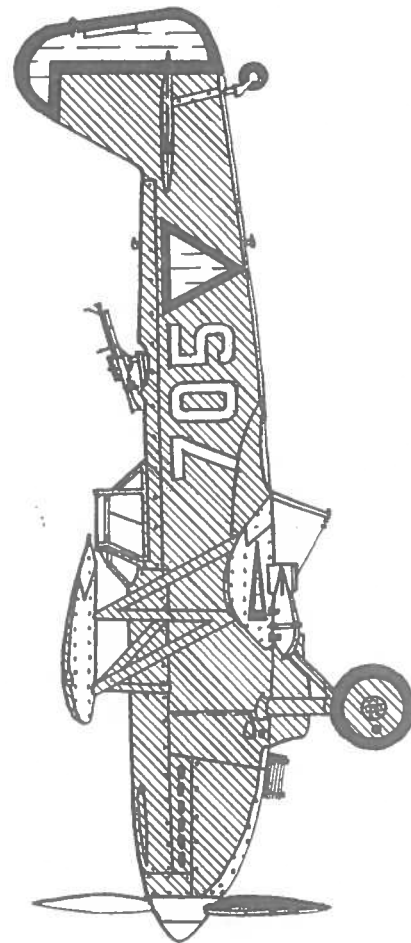


### Fokker T.5 #856, Bom VA

One of eight T.5s to take-off during the bombing of Schiphol airfield, #856 went on to fly seven combat missions in four days, the most of any Dutch bomber. Commanded by 2Lt B. Swagerman on its last mission, it was used on May 13<sup>th</sup> to attack the bridges at Moerdijk in a vain effort to keep the German *panzers* out of "Fortress Holland". As it left the target area it was attacked by Bf.109Es and shot down, killing all aboard. For his courage and sacrifice, Lt Swagerman was awarded the "Knight 4<sup>th</sup> Class" of the Wilhelms Order, the Netherlands' highest individual award for bravery. SOURCE: *Aero Album*, Vol 5, Spring 1969, pg 5

2e Afdeling ("StraVerVA")

## Fokker C.10 Reconnaissance Biplane #709



### Fokker C.10 #705, Stra Ver VA

Having survived the initial *Luftwaffe* attack on Bergen airfield, #705 flew four combat missions in the next three days. Two of these were ground attack missions against German forces advancing up the Grebbeberg on May 13<sup>th</sup>, one flown by 1Lt S. J. Postma, the author of the book *Hu-Bo-Be* (an acronym for extremely low flying—level with the "barn, tree, and animals"). The next day this aircraft was one of only two C.10s to escape Holland, being flown to Mardyck airfield at Dunkirk where it was abandoned. Bombs were yellow; prop was gray on front, black on back. SOURCE: *KLu Vliegtuigen* by Wim Schoenmaker and Thijs Postma, pg 53

### Color Key

Bare Metal (Silver)  
FS 17178



Med Hvy Sepia/  
Goldenrod (Sand)  
FS 30257

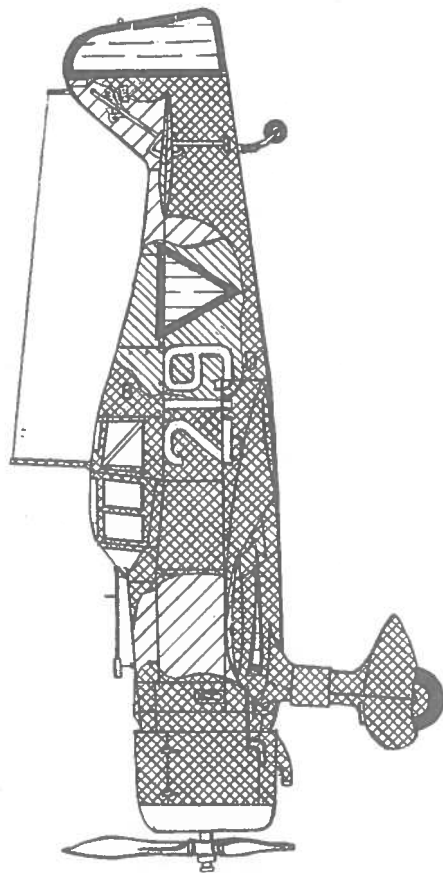




## II GROUP ("Jachtgroep")

### 1e Afdeling ("1e JaVA")

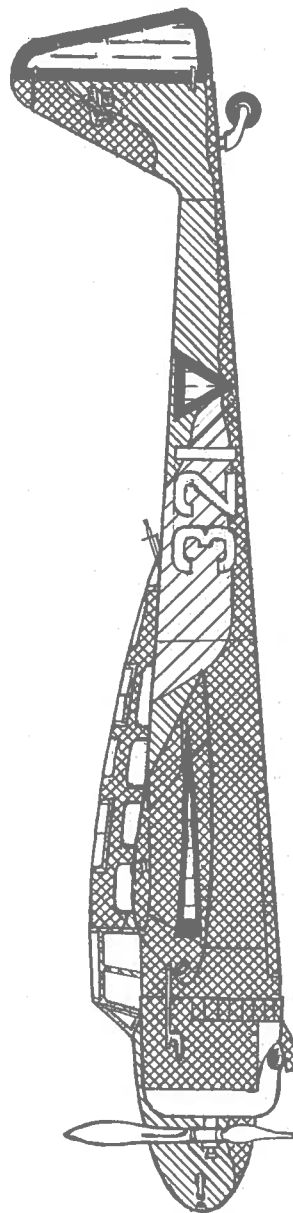
#### Fokker D.21 Fighter #219



### 3e Afdeling

#### ("3e JaVA")

#### Fokker G.1 Fighter #321



Dutch Insignia Orange  
FS 22510



Black/  
Rubber



Med Hvy Sepia/  
Sienna Brown  
FS 20100



Olive Green  
FS 34138



SOURCE: D.XXI in Dutch and Danish Service, by Warren Eberspacher, St.Paul, MN: Phalanx Publishing Co., 1994, pg 41

#### Fokker D.21 #219, 1.JaVA

Flown by Lt Henk J. van Overvest on the morning of May 10<sup>th</sup>, this was the only D.21 known to shoot down a Bf.109E. Badly damaged in the dogfight, it was repaired at De Kooy and sent to the Combined JaVA at Buiksloot on May 12<sup>th</sup>. There it was flown on four additional combat missions before being destroyed at Schiphol airfield on the morning of May 14<sup>th</sup>. SOURCE: Aviation History Vol 14/#4, pg 59

#### Fokker G.1 #321, 3.JaVA

The only G.1 to survive the Luftwaffe bombing of Bergen airfield on May 10, this fighter was used by 1Lt J. Thijssen to strafe three Ju.52/3m transports which had landed on a beach near The Hague. Its next and last mission was on May 13<sup>th</sup> when 2Lt A. van Ulsen used it to strafe German ground forces advancing upon Dutch positions near Utrecht. Although damaged by flak, Lt van Ulsen surprised a trio of Bf.109Es (1/JG.26) over Woerden and claimed one shot down. The damaged aircraft was later destroyed at Schiphol to prevent capture by the Germans. SOURCE: Camouflage en Kentekens by J.H.N. Greuter, pg 227.

(squadron-sized Reconnaissance Groups) providing tactical reconnaissance and a *Jachtgroep* consisting of a squadron of American-built attack aircraft and another of indigenous fighter planes. This *Jachtgroep* was intended to provide the *Veldleger* commander with a modicum of offensive striking power and air defense for his front-line units and protection of his slow, vulnerable battlefield observation aircraft.

The 3.LvR consisted of the ML's training establishment, an Elementary Flying School at Vlissingen, the Advanced Flying School at Heemstede, and the Finishing School (consisting of the fighter and the multi-engine training units) based at De Vlijt field on Texel Island on the North Sea coast.

## Equipment and Strength

By 1940, Holland's aviation industry was working hard to catch up with the rest of Europe's accelerating aviation advances and, as a result, the ML squadrons were equipped with a quaint mixture of the obsolete, the obsolescent, and the modern. Most of the Dutch fighter force was equipped with the halfway measure Fokker D.21 single-engine monoplane fighter. Built in the typical Fokker fashion of mixed construction wooden wings, metal forward fuselage, and fabric over welded steel tube frame empennage it had an enclosed cockpit, but retained the fixed landing gear and externally braced tailplanes of the previous, biplane generation. Additionally about half lacked radios, an issue which was to prove detrimental to their employment in combat.

Fielded in mid-1938, 36 of these obsolescent fighters were purchased and they equipped the first two *Jacht Vliegtuig Afdelingen* (squadron-sized Fighter Flying Divisions abbreviated 1.JaVA and 2.JaVA) of the 1.LvR (with 12 aircraft assigned to each) and the 1<sup>st</sup> Squadron of the Ve Groep/2<sup>nd</sup> Luchtvaart Regiment (abbreviated 1-V-2.LvR) (with nine planes). (For the exact strength of each Dutch aviation unit on May 10<sup>th</sup>, 1940, see Appendix One; see also notes 1 and 2.)

### Fokker D.21

The Fokker D.21 first flew in 1936 initially to meet a Netherlands East Indies (NEI) air force requirement for a monoplane fighter. Powered by a 830 hp Bristol Mercury VIII radial engine its fixed landing gear limited its speed to 286 mph (460 km/hr) at 16,730 feet (5,100 m), much slower than the top speeds of the Messerschmitt Bf.109E (348 mph/560 km/hr) and Bf.110C (326 mph/525 km/hr) fighters that it would face. However, it was light on the controls and very nimble with excellent maneuverability for a monoplane. It was armed with four FN-Browning 7.9 mm M-36 machine guns.

The remaining two fighter units (3.JaVA and 4.JaVA) of the 1.LvR's fighter group were each equipped with 12 modern, twin-engine, retractable gear Fokker G.1 *jachtkruiser* (fighting cruiser) heavy fighters. Deliveries of this fast, powerful airplane began in late 1938, but Fokker's difficulty in obtaining parts for this more sophisticated design resulted in a slower rate of delivery than its simpler D.21 stablemate. Fortunately, however, even after the delivery of the 36 G.1s to the ML was complete, the production line, at the Fokker factory located close to Schiphol airport at Amsterdam remained open, completing an additional 10 G.1s of the 26 that had previously been ordered by the now-defunct Spanish Republican government. These had been purchased by the Dutch government and ten completed

examples would be available for the coming conflict. (see note 3)

### Fokker G.1

The Fokker G.1 was designed to meet the LVA's requirement for a multi-place, multirole "battle plane" (called a *kruiser* - named after its naval equivalent). For commonality with the D.21, it was powered by a pair of 830 hp Bristol Mercury VIII radials giving it had a top speed of 295 mph (470 km/hr) at 13,450 feet (4,100 m). This was slower than both the Bf.109E and Bf.110C, but it could easily catch the 249 mph (400 km/hr) He.111P bomber and with eight FN-Browning 7.9 mm M-36 machine guns it could rip one apart. Slower than the opposing German fighters and not particularly maneuverable, it was defended from rear attacks by a gunner with a ninth 7.9 mm machine gun.

The *Strategische Groep*'s single bomber squadron (the *Bombardement Vliegtuig Afdeling* or *BomVA*) was equipped with nine operational (of 16 built) Fokker T.5 twin-engine medium bombers and was based at Schiphol airfield near Amsterdam. (see note 4) Plagued by repeated engine and propeller problems, a lack of bomb racks, and shortages of spare parts, the other six were non-operational at the onset of hostilities.

### Fokker T.5

The Fokker T.5 was a large, heavy, twin-tail, twin-engine airplane initially intended to realize the multi-role *luchtkruiser* concept. A very conventional design using traditional Fokker mixed construction, it was powered by a pair of 925 hp nine cylinder Bristol Pegasus XXVI radial engines. Capable of 258 mph (416 km/hr) at 9,000 ft (2,745 m), it had a max bombload of 2,205 lb (1,000 kg) and a range of 1,012 miles (1,630 km). It was defended by five 7.9 mm machine guns in the tail, dorsal, ventral, and side positions. The nose was armed with a 20 mm cannon.

The *Strategische Verkenning Vliegtuig Afdeling* (Strategic Reconnaissance Flying Division abbreviated *StratVerVA* based at Bergen) was equipped with 13 of the 20 Fokker C.10 reconnaissance biplanes purchased in 1938 (see note 5). An improvement over the C.5d, the design lacked both the speed and range to be an effective strategic reconnaissance aircraft but would find use as a light bomber. Thus, the High Command was given the ML's most advanced reconnaissance airplane as its "eyes", a sadly obsolete biplane design.

### Fokker C.10

The C.10 was the final iteration of Fokker's classic, but patently obsolete, two-seat reconnaissance biplane concept. First flown in 1934, it was intended to replace the ubiquitous C.5d but budget constraints, factory capabilities, and competing priorities resulted in only 20 being acquired (4 of them as trainers). Powered by a 830 hp Rolls Royce Kestrel V in-line engine, it could fly as fast as 199 mph (320 km/hr) and had a range of 516 miles (830 km). It was armed with a pair of 7.9mm machine guns in the nose and the observer had a third weapon for rear defense. It = also doubled as a light bomber, carrying up to 880 lb (400 kg) of small bombs.

The *Veldleger*'s 2.LvR's striking power was vested in a dozen imported Douglas DB-8A/3N all-metal, single-engine attack bombers. Eighteen of these had been purchased, one had been lost in an accident and the remaining five were in storage at Ockenburg (see note 6). A severely limited quantity of bombs, as well as a lack of defensive machine guns and a shortage of spark plugs, greatly hampered this newly established unit, the 3-V-2.LvR squadron, which was stationed at Ypenburg.

### Douglas DB-8A/3N

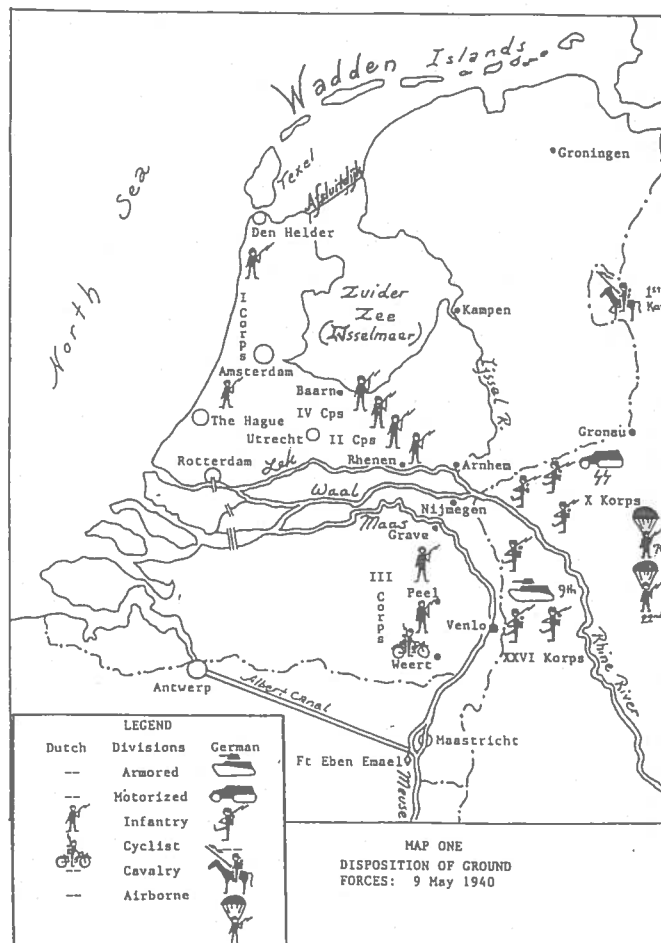
The Douglas DB-8A attack bomber was derived from the Northrop YA-13/A-17 design of the mid-1930s and was widely exported. With retractable landing gear, constant speed propeller, and enclosed cockpits it was the most sophisticated single engine aircraft in the ML inventory. However it was still very slow, managing a top speed of only 220 mph (354 km/hr) at 2,500 ft (762 m) - slower even than a Ju 87 Stuka - from its 1,050 hp Wright Cyclone radial engine. It could carry only 400 lbs (181 kg) but had four 7.9 mm machine guns in the wing for strafing. It was defended from the rear by another 7.9 mm gun.

Finally, the *Veldleger's* battlefield observation capability lay in some 53 decidedly obsolete Fokker C.5d's. Although uprated with the installation of the powerful (580 hp) Rolls Royce Kestrel engine, it remained an old, slow biplane with an inadequate defensive armament. This sizable force of antiquated biplanes were supposedly supplemented by the purchase of 29 new Koolhoven F.K.51 light observation biplanes, but these proved so slow and vulnerable that after one aborted combat mission, they were never again to be used in operations.

### Fokker C.5RR

As the first multirole combat aircraft, the Fokker C.V was a worldwide icon in military aviation during the 1920s. Designed to perform a variety of roles by changing the wing configuration and to accept a wide choice of powerplants, the C.V was first flown in 1924. The LVA originally acquired a total of 69 aircraft and in 1936 re-engined 50 airframes (plus 7 new builds) with the 580 hp Rolls Royce Kestrel IIB in-line, liquid cooled engine, calling them C.5-RRs. These variants had a cruising speed of 127 mph (205 km/hr) and could fly as high as 18,050 ft (5,500 m). They mounted one or two 7.9 mm machine guns in the nose and the observer had a similar weapon for rear defense. It could carry up to 441 lb (200 kg) of bombs in various combinations of 55lb (25kg) and 110 lbs (50kg), or 16 small (17.6 lb/8 kg) anti-personnel bombs. A patently obsolete design in the completely outdated role of battlefield observation, the C.5d's of the ML would suffer grievously during the coming German invasion.

Thus, the *ML* arrived at the brink of war with a relatively small, but well balanced force of 125 operational warplanes. Theoretically, this force of fighters, bombers, and reconnaissance aircraft should have been able to provide a respectable capability in both the strategic (by 1.LvR) and tactical (by 2.LvR) roles. While these aircraft would be flown with bravery and distinction that exceeded their true combat capabilities, in the end, however, this force was to prove woefully inadequate in size, equipment, and training to face an unrelenting foe that was deadly serious about prosecuting



an offensive aerial campaign.

Early in May 1940, the Dutch Military Attaché in Berlin, Colonel (Col) J. G. Sas, informed the Dutch High Command of the impending invasion. These warnings had come several times before and regrettably the Dutch unit commanders were somewhat "numbed" by the repeated alerts. Nonetheless, the *ML* ordered increased alert beginning on May 2<sup>nd</sup>, canceling all leaves and going onto a wartime footing. Five days later, the *ML* went onto full alert: each aircraft fueled and armed, pilots and ground crewmen standing-by. Then, after Col Sas issued his final warning, on the evening of May 9<sup>th</sup>, the order was given to have all airplanes ready to fly by 0300 hours the next morning.

For the men of the *Militaire Luchtvaart* the time for

## Part 1: Chapter 2 Aufmarschanweisung Gelb

For the air defense of western Germany, especially of the Ruhr region and the North Sea harbors, it thus becomes necessary to gain a broader 'Vorveld' ('buffer zone') for our air defense by occupying as much Dutch territory as possible

Adolf Hitler,  
Directions to Wehrmacht  
High Command, 14 Nov 39

On September 27<sup>th</sup>, 1939, only hours after the surrender of the Polish army besieged at Warsaw, Hitler met with the Commanders-in-Chiefs of the three *Wehrmacht* services and announced his intention of invading France through "Belgium and the Dutch appendix of Maastricht." The original objective of the *Führer* was to reach the Channel coast "to defeat...the French army and...the forces of the allies fighting on their side and at the same time to win as much territory as possible...to serve as a base for successful prosecution of the war...against England." An offensive directly through Belgium and the southern portion of The Netherlands was seen as the most efficient means. In the initial planning directive, issued on 19 October 1939, the main weight (*schwerpunkt*) of the *panzer* assault was planned to be just north of the Belgian fortress-city of Liege. The unfortunate fact of political geography was that the narrow sliver of The Netherlands' Limburg Province the "appendix" that extends down so as to almost touch Liege would have to be crossed by German forces.

While Deployment Directive Yellow (*Aufmarschanweisung Gelb* - more commonly referred to as *Fall Gelb* or Case Yellow) was under further development, *Luftwaffe* leaders began to evince concern over the violation of Holland's age-old neutrality and yet not subduing the nation as a whole. Even though only a tiny portion of The Netherlands would be crossed, the political ramifications were immense. Conceivably, Holland could justifiably join the war on the side of the Allies and allow RAF bombers to stage through (or worse, be based at) Dutch air bases near The Hague and Rotterdam. From there they could easily attack the invading *panzer* columns or worse yet strike at the heart of Germany herself. To combat this eventuality, Göring argued, these airfields must be secured and, as a consequence, Holland itself must be subjugated. Hitler approved of the idea and, *Fall Gelb* was revised (on 20 November 1939), sealing the neutral nation's fate.

It was revised once more in the bitter winter months of 1940, being completely rewritten according to the von Manstein-formula - the *schwerpunkt* being moved to the Ardennes-Sedan axis at the south edge of the offensive. In the main the plan now consisted of three parts:

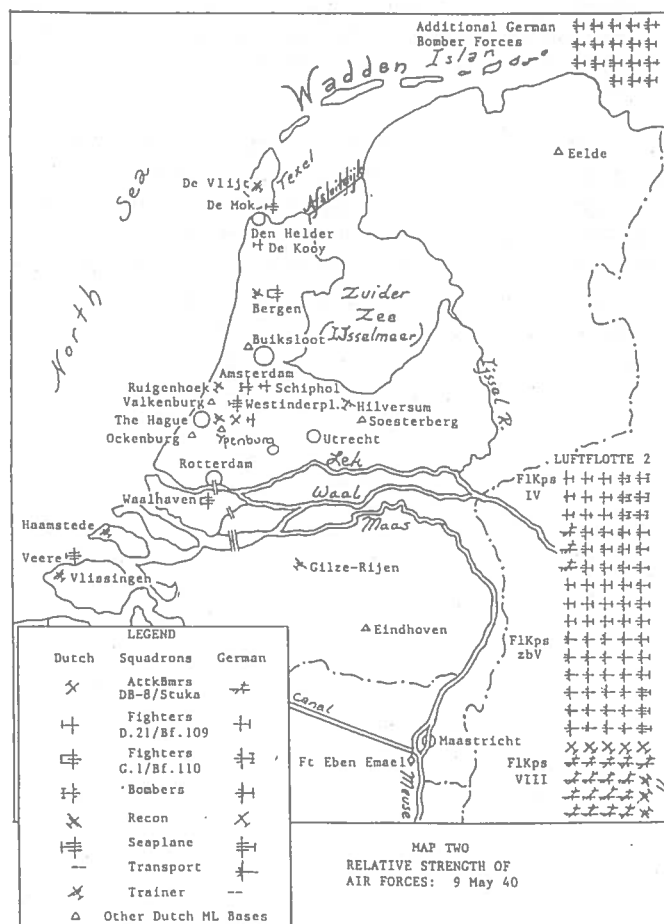
1. The Matador's Cloak - the strong advance through Maastricht and Liege and into central Belgium in order to draw the large Allied mobile forces into the middle of that neutral country,

2. The *sichelschnitt* (sickle cut) the massive armored wedge of *Panzergruppe von Kleist* pushing through the intimidating forests of the Ardennes to cross the Meuse River at Sedan and drive headlong to the sea in order to cut off the Allied field forces in Belgium, and

3. The subjugation of Holland by what ground forces could be spared and the largest airborne assault thus far in the history of warfare.

Holland, then, was to be faced with an invasion by General Georg von Küchler's Eighteenth Army, consisting of nine divisions, including the 9<sup>th</sup> *Panzer* Division (9<sup>th</sup> *Pz* Division equipped mainly with old, small, light *PzKw* Mk.I and Mk.II training tanks), one motorized SS division, six second-line infantry divisions manned with more elderly reservists, and, curiously, the only horse-mounted cavalry division in the German army. In addition to these relatively (compared with other *Wehrmacht* formations) poorly-equipped ground units,

von Küchler also relied upon the *Luftwaffe*'s elite but small 7<sup>th</sup> Airborne Division of paratroopers (called *fallschirmjäger* in German) commanded by Major General (MajGen) Kurt Student and the army's air assault trained 22<sup>nd</sup> *Luftlande* Division (22<sup>nd</sup> Air-Landing Division, abbreviated 22<sup>nd</sup> LL Division - see note 7) commanded by Maj Gen Hans Graf von Sponeck.



Overall, the plan for the subjugation of Holland was strikingly similar to the von Manstein campaign plan of which it was a subordinate part. The X Corps (with the 1st Cavalry Division covering the northern flank), north of the Rhine River, would advance in strength into central Holland towards Utrecht, engage and tie down the main elements of the Dutch field army. The XXVI Corps, with the 9<sup>th</sup> *Pz* Division in the van, would cross the Maas River north of Maastricht and race headlong to the west before turning north to cut in behind the Dutch forces. To do so, there would be a maze of three rivers to cross in this vicinity: the Maas (also called the "Holland Deep") at Moerdijk, the Waal (the Dutch Rhine) at Dordrecht, and the Lek estuary (called the Nieuwe Maas) at Rotterdam itself. These crossings would be secured in the early hours of the first day by paratroopers of the *Luftwaffe*'s 7<sup>th</sup> Airborne Division.

In a bold attempt to carry off a *coup d' main*, the major elements of the Army's 22<sup>nd</sup> LL Division would be landed at three large airfields surrounding The Hague and would converge on the Dutch capital quickly in order to threaten and secure the surrender of Queen Wilhelmina. Thus, the Germans planned for and hoped for a quick, effective, and decisive campaign, eliminating a worrisome piece

of real estate before throwing the Eighteenth Army and more importantly its supporting *Luftwaffe* elements into the breakthrough at Sedan and the race to the sea.

To support the operation in Holland, the Eighteenth Army was to be provided with formidable air cover by a special portion of Gen Albert Kesselring's *Luftflotte 2*. This command was called the *Fliegerkorps zur besonderen Verwendung* (Flying Corps for Special Missions - or *Fliegerkorps zbV*) under MajGen Richart Putzier. This formation had under its control of a mix of three fighter wings (186 operational single-engine Bf 109s and 44 twin-engine Bf 110s), one group of *Stuka* dive bombers (37 serviceable Ju 87s), and five groups of twin-engine medium bombers (89 combat-ready He 111s and 46 Ju 88s) detached from their parent organizations (see note 8 and Appendix 2) and a collection of transport units, both combat and auxiliary, gathered to deliver the airborne and air assault troops deep into Holland. These were the well-trained and battle tested *Kampfgeschwader zbV.1* (*KG zbV.1* - see note 9) and the more provisional *KG zbV.2*, formed out of temporarily mobilized instrument flying and multi-engine training schools, the Berlin Air Liaison Staff, and the *Deutsche Lufthansa* airline. All told, of the 531 Junkers Ju.52/3m trimotor transports on strength with the *Luftwaffe* on May 4<sup>th</sup>, 1940, some 430 were assigned to *Fliegerkorps zbV* for the assault on Holland.

The mission of the combat-trained and experienced *KG zbV.1* was to provide airlift and delivery of the 7<sup>th</sup> Airborne Division that would parachute to secure the key objectives (three bridges and four airfields) deep in the rear of the Dutch army. The *KG zbV.2*, not being trained for combat parachute drops, would then land the 22<sup>nd</sup> LL Division on the Dutch airfields that had been secured by the paratroopers.

Since these airborne forces could not hope to survive more than a few days without re-supply and relief by heavier forces, the 9<sup>th</sup> Pz Division would need to quickly breakthrough the Dutch frontier defenses and race unimpeded across southern Holland to the chain of the three paratrooper-held bridges to relieve the otherwise isolated and vulnerable 22<sup>nd</sup> LL Division deployed around The Hague. Although fraught with considerable risk, the plan was almost a miniature version of *Fall Gelb* itself, with the *schwerpunkt* at the south end of the front, sweeping in a wide left hook to reach the Channel coast. It all depended on the element of surprise and the speed of the *panzers* in order to arrive at the objectives before the Dutch had a chance to defeat the airborne forces in detail and time to open the dikes and inundate the lowlands with water effectively forming an impassible moat before the invading ground forces.

This plan was almost foiled by the Dutch preparations to deal with the airborne assault.

## End Notes

1. Since the ML was formally a division of the Dutch Army, its aviation units were designated along traditional army (company/battalion/regiment) lines as squadron (using Arabic numerals)-group (using Roman numerals)-regiment (Arabic again). For example, the 1.LvR's *Strategische Groep* was formally designated I-1.LvR with its BomVA designated I-1-I.1.LvR, the *StratVerVA* being 2-I-1.LvR. The regiment's *Jachtgroep* was II-1.LvR, with its squadrons designated accordingly I-II-1.LvR through 4-II-1.LvR. For simplicity, clarity, and readability, I have referred to the fighter squadrons by their individual squadron number, the reconnaissance units by their group numbers (Ie through IVe *Groepen*) and the other units by their names (BomVA and *StratVerVA*) or as a last resort in the case of 2.LvR's two fighter/attack squadrons their formal designations (1-I-2.LvR and 3-V-2.LvR). These also appear to be the most common references in Dutch literature on the subject.

2. Originally authorized a dozen D.21s, 1.JaVA's aircraft number 237 was lost in bad weather on November 22, 1939, while ferrying a load of pistols from Soesterberg (Det II-1.LvR) to Waalhaven (3.JaVA). The aircraft crashed in thick fog east of Rotterdam, killing the pilot, Sgt Clinge Doorenbos. This aircraft was not replaced in 1.JaVA, leaving the unit's operational strength at 11 D.21s on 10 May 1940. Of 12 D.21s on strength with 2.JaVA, numbers 230, 232, and 243 were unserviceable that morning. For a time after Nov 39, the LVA had four D.21 units: 1e and 2e JaVA, 1-V2.LvR, and a detachment of II-1.LvR which was forward based at Soesterberg. Aircraft 237 was one of several 1e/2e JaVA D.21s assigned to Det II-1.LvR at the time of its loss. As the G-1 units came on strength, Det II-1.LvR was disbanded in Feb 40 and the planes were returned to the original

units.

3. On 6 January 1940, a G.1 (306) of 3.JaVA was lost in a mid-air collision during air combat training with a D.21 (234 survived, was repaired, and soon returned to service). Other G.1s at the Fokker factory for repair or modification were 303, 323, and 327. Some 26 G.1s, to be powered by 825 hp Pratt & Whitney Twin Wasp Junior radials, were ordered by the Spanish Republican government in 1937. With the League of Nations ban on supporting either side in the Spanish Civil War, these were re-ordered by Estonia in January 1938. However, with the eruption of hostilities in Europe, this order was taken over by the ML on 30 Dec 39. Six unarmed examples had been accepted by the ML by 10 May 40, with another four completed and awaiting acceptance. Armament was a serious problem and only three (342, 343, and 346) would eventually be pressed into Dutch service (with 4.JaVA), armed with four 7.9 mm M-36 machine guns in the nose and a fifth for rear defense.

4. Of the 16 T.5s built, one (861) was at the *Meermotorige Vliegsschool* at De Vlijt, two (852 and 864) were at the Fokker factory on the south side of Schiphol airfield undergoing repair for landing accidents, and four (851, 857, 860, and 863) were unserviceable for lack of bomb racks, engines, and other parts.

5. The first four C.10s (700-703) were initially completed as two-seat "two-stick" trainers. By May 1940, three of these (701-703), plus 717, were back at the Fokker factory for repair and modification to the standard reconnaissance configuration. On one C.10 (700) the modification had been completed and it was assigned to the *StratVerVA*. Two others (718 and 719) were assigned to a tactical reconnaissance squadron (Ie Verk Gp) to make up for the lack of C.5d's available. The remaining 13 were with the *StratVerVA* at Bergen.

6. The aircraft lost in an accident was 386. The aircraft in storage at Ockenburg airfield were 394-398.

7. The 22nd LL Division had been specially trained as an "air assault" unit to be delivered to the battle area by transport aircraft landing on fields previously secured by paratroopers. For the assault on Holland it was reinforced with a fourth regiment.

8. Numbers cited are operational, that is serviceable or combat-ready aircraft, as taken from *Twelve Days in May*, by Brian Cull, et.al., pages 10 and 11. For total German aircraft available (including unserviceables), see Appendix 2 to this work, taken from the same source. Because of the dynamic nature of air combat operations - the fact that units could and would be tasked to support various ground formations in and outside of Holland and subsequent re-assignment to other commands some inconsistency exists in works on the subject as to the exact numbers of German aircraft involved. The numbers cited here are the strengths of those units assigned to the initial attacks on Holland.

9. *KGzbV* stands for *Kampfgeschwader zur besonderen Verwendung*, literally: Battle Wing for Special Missions. *KG zbV.1* had been used to good effect in the airborne operations against Denmark and Norway the previous month. *KG zbV.2* was formed on May 8th, only two days before the campaign began, with four groups (or *gruppen*) which were designated *KGr zbV.9*, 11, and 12 (these three formed the same date) and the I Gruppe of *KG zbV.172* (I/*KGzbV.172* a unit trained especially for the airlift and delivery of heavy weapons). These two transport wings were backed up by a reserve of Ju 52/3m's assigned to *KGr zbV.101*, *KGr zbV.104*, and *KGr zbV.106*.



# **APPENDIX ONE** **Militaire Luchtvaart Air Order of Battle** **10 May 1940**

Luchtvaart Regiment 1 (1.LvR)				3 FK.51			
Strategische Groep (Ie Groep)	BomVA	9 T.5	Schiphol	Jachtgroep (Ve Groep)	1-V-2.LvR	(plus 1 C.5d and 2 FK.51 unserviceable)	
	StratVerVA	10 C.10	Bergen			8 D.21	Ypenburg
Jachtgroep (IIe Groep)	1.JaVA	11 D.21	De Kooy	3-V-2.LvR	(plus 1 unserviceable)		
	2.JaVA	9 D.21	Schiphol		11 DB-8A	Ypenburg	
		(plus 3 unserviceable)			(plus 1 unserviceable)		
	3.JaVA	11 G.1	Waalhaven		1 DH.90		
		(plus 1 unserviceable)		Luchtvaart Regiment 3 (3.LvR)			
	4.JaVA	12 G.1	Bergen	Basic Flying School		11 S.4	Vlissingen
		(plus 2 unserviceable)		(Elementaire Vliegschool)		15 S.9	
Luchtvaart Regiment 2 (2.LvR)				Advanced Flying School		3 F.7A	Haamstede
Ie Verkenningsgroep				(Vliegschool voor voortgezette vlieopleiding)		1 S.2A (air ambulance)	
		1 C.10	Hilversum			1 C.9, 1 FK.46, 1 FK.49	
		4 C.5d				9 C.5d, 2 FK.56	
		4 FK.51				3 C.10 (all unserviceable)	
		(plus 1 C.10 and 2 C.5d unserviceable)				10 FK.51 (plus 8 unservcbl)	
IIe Verkenningsgroep				Fighter Flying School		7 D.17	De Vlijt
		7 C.5d	Ypenburg	(Jachtvliegschool)		2 D.21	
		5 FK.51				1 G.1, 3 FK.56	
IIIe Verkenningsgroep						1 NA-27, 1 Bu.131	
		9 C.5d	Ruigenhoek			3 FW.58B	De Vlijt
		4 FK.51		Multi-Engine Flying School		1 T.5	
		(plus 1 C.5d unserviceable)		(Meermotorige Vliegschool)			
IVe Verkenningsgroep							
		7 C.5d	Gilze-Rijen				

## **APPENDIX TWO** **Luftwaffe Air Order of Battle** **Aufmarschanweisung Gelb** **10 May 1940**

<b>Luftflotte 2</b> (Kesselring) (Cover Army Group "B")	<b>Fliegerkorps zbV</b> (Putzier)	I/KG.4	36 He.111H	Guetersloh	II/JG.26	48 Bf.109E	Boeninghardt
		II/KG.4	35 He.111P	Fassberg	II/JG.27	44 Bf.109E	Boeninghardt
		III/KG.4	23 He.111P	Delmenhorst	ZG.26	I and III/ZG.26	74 Bf.110C
			and 37 Ju.88A		Fliegerdivision 9 (Coeler/Sea-Mining)		
		I/KG.54	36 He.111P	Quakenbrueck	KGr.126	32 He.111H	
		II/KG.54	29 He.111P	Varrelbusch	KuFiGr.106	23 He.115B	
		III/KG.54	35 He.111P	Vechta	Heeresfliegerverbaende (Army Co-operation Units)		
		AufklSt.zbV	5 Do.17M	Bremen	7(F)/LG.2	7 Do.17M	
			and 2 He.111H			and 12 Do.17P	
	<b>Fliegerdivision 7 (Student/Airborne)</b>				4(H)/21	9 Hs.126	
		KG zbV.1	215 Ju.52/3m		4(H)/23	9 Hs.126	
		KG zbV.2	215 Ju.52/3m		Kurierstaffel.8	14 Fi.156 (2)	
		Staffel			Also Available to Luftflotte 2:		
		Schwilden	12 He.59D)		II(J)/TrGr.186	48 Bf.109E (5)	Wangerooze
		(Detached from KGr zbV.108)			(From JaFu Deutsche Bucht)		
	<b>Jagdfliegerfuehrer 2 (von Döring/Fighters)</b>				II/KG.26	28 He.111H	Aalborg
	JG.26	II/JG.26	51 Bf.109E	Dortmund	(From FlKps X)		
		III/JG.26	42 Bf.109E	Essen	I/KG.30	34 Ju.88A	Oldenburg
		III/JG.3	37 Bf.109E	Hopsten	(From FlKps IV)		
	JG.51	I/JG.51	47 Bf.109E	Krefeld	IV(St)/LG.1	39 Ju.87B	Duisburg
		I/JG.20	48 Bf.109E	Boeninghardt	(From FlKps.VIII)		

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### Additional Remarks on the Status of the Militaire Luchtvaart in May 1940

[Editor's note: In response to a pre-print sent to him by Doug Dildy, Frits Gerdessen sent the following additional information. This should be read in conjunction with Doug's article in this issue of SAFO. Note that Frits denotes Fokker aircraft by Arabic numbers, not by Roman numerals, e.g. C.10 instead of C.X.]

What follows is some general information that lies outside the scope of Doug's article, but is, nevertheless, of interest regarding pre-war tensions and Dutch preparations.

A new organization for the ML was proposed in 1935 and accepted in 1937. The LVA was organized into three Afdelingsscholen. These "Schools" later became the "Regiments". The organization became a reality with the B.O.-U.V. of 7 April 1939:

I-1 LvR Strategische Groep			
1-I-1 LvR	9 C.10	Schiphol	Kpt. J. v.d.Erff
2-I-1 LvR	9 T.5	Schiphol	Kpt. J.L. Zegers
11-2 LvR Jachtgroep			
1-II-1 LvR	6 D.21	Schiphol	Res. kpt. H.M. Schmidt
			Crans
2-II-1 LvR	4 D.17/2 D.21	Waalhaven	Kapt. P.J.E. Janssens
3-II-1 LvR	6 D.21	Soesterberg	Elt. M.C. Palm
2 LvR Four Vliegtuiggroepen			
I-2 LvR	7 C.5/4 FK.51	Soesterberg	Kpt. W.H. Wijnkamp;
II-2 LvR	7 C.5 /4 FK.51	Ypenburg	Kpt. H.A. Luitwieler;
III-2 LvR	7 C.5/4 FK.51	GilzeRijen	Kpt. F. Raland;
IV-2 LvR	7 C.5/4 FK.51	Soesterberg	Kpt. A.W. de Ruijter
			van Steveninck

Total first-line strength: 80 aircraft

B.O.U.V. was short for Buitengewone Oproeping Uitwendige Veiligheid (Special Call Up - External Security). For these mobilizations, air-defense, coastal-

defense, and border troops were mobilized first since these units had to be in place to cover any general mobilization. The first B.O.-U.V. was on 1 Oct. 1938 during of the Munich Crisis. The second was on 7 April 1939 during the Albanian Crisis.

General mobilization was declared on 29 August 1939. After that, there were four alarms: In November 1939 and in January 1940 but, on both occasions, Germany postponed their attack because of bad weather. The third alarm was on 9 April 1940 when Germany attacked Denmark and Norway. The final alarm was on 7 May 1940.

In August 1939 each JaVA had nine D.21, so total strength was increased to 89 aircraft.

3rd JaVA	received G.I's in September 1939
4th JaVA	formed 1 September 1939
V2 LvR	started organization mid September 1939
	1 Decemebr Kpt. W.H. Wijnkamp
1-V-2 LvR	D.21                      Elt. P.J.E. Ruijs de Perez
2-V-2 LvR	D.17                      Elt. P.T. Bierema
	later G.I Wasp
3-V-2 LvR	DB8A                      Res..kpt. J.A. Bach
4-V-2 LvR	not yet organized,
	would have G.I Wasp

Each unit had 12 a/c; nine first line plus three in reserve (repair, overhaul etc.). Eighteen aircraft were acquired per squadron providing 100% reserve. The remaining six aircraft were in storage at the Luchtvaartbedrijf (LVB) Depot. For the T.5, two less aircraft were bought.

The first line strength in May 1940 was officially:

7 units with 9 aircraft	63
1 fighter unit (1V2 LvR) with 6 aircraft	6
4 groups with 7 plus 4 aircraft	44
Total	113

Due to the excellent serviceability about 15 more aircraft were operational.

Between April 1939 and May 1940 there were several base and commander changes, the last on the 7 May when Soesterberg was evacuated and the local 3V2 LvR moved to Ypenburg. Early in May, the D.17 equipped 2V2 LvR was deactivated and the personnel temporarily transferred to 3V2 LvR. On 1 June, the unit would receive the G.1 Wasp. 2V2 LvR had only 3 pilots: Elt. P.T.Bierema (C.O.), Tlt. Scheepens and Sgt. Hinrichs. Its D.17's were transferred to the Eindopleiding at De Vlijt, Texel.

**Aircraft procurement:** In line with the organization plans, T.5's, FK.51's, G.1's and D.21's were ordered in 1937. Due to problems with acquiring parts by Fokker and the Munich Crisis, D.21 and T.5 production was speeded up in the Fall of 1938 and G.1 delivery were retarded.

In the Summer of 1938, the IML asked quotations from home and foreign aircraft manufacturers to select types for the next round of purchases. The advice was: 18 Hurricanes, 18 Dornier Do 17, and 18 DB8A. Eighteen more single-seat fighters were needed, but the IML would consider those next year. In the meantime, plans were for the D.21 to be used for two more years as an interim interceptor fighter. It would then be replaced by a newer type and the D.21's transferred to V2 LvR. This transfer was acceptable, since the Jachtgroep Veldleger were intended to protect recce aircraft and thus less performance was needed than for air defense fighters.

Thanks to indecisiveness and the budget-cutting mood of the Defense Minister (Van Dijk), only the DB8A's, three Focke Wulf Weihe crew trainers, and 20 Fokker S.9 trainers were ordered. The minister found the Koolhoven FK.58 cheap and ordered 36 of them against the opinion of the whole ML and GS. The FK.58 were powered by the Bristol Taurus, but Minister van Dijk failed to have the engines ordered at the same time as the aircraft. In addition, FK.56 trainers was ordered. Minister van Dijk had dealt defense of Holland a lethal blow.

After a cabinet crisis in August 1939, the new MoD (Lt.Kol. Dijkhoorn) did his utmost to make good what had been spoiled. Orders were placed for two more FW 58 (delivered), 26 G.1 Wasp, 18 Do 215, 20 heavy fighters G.2 (later C.16 and CG.2), 36 Koolhoven FK.59 (modified FK.52), 45 Mercury XV for the FK.59, 24 Curtiss CW21B, 10 more FK.56, and 20 more S.9.

Minister Dijkhoorn had immediately ordered the Taurus engines, but export was forbidden. It was later possible to increase by 55 the order for Bristol Mercury XV. About 60 arrived and went into storage since the aircraft were far from ready. They were captured by the Germans and sold to Finland, along with many of the Mercury VIII.

FK.56 delivery started early April 1940.

The FK.59 was to replace the C.5. The C.10 was to be replaced by the C.16 and would in turn replace the C.5 in I2 LvR. The C.5 would replace the FK.51, which would go to the schools.

V2 LvR would have 2 G.1 units, one DB8A, and one D.21.

**Radio:** About half the D.21's and all operational G.1's had radios. Each operational G.1 had a 3 letter call sign. The D.21 radios were only used in the early morning of 10 May by 1st JaVA. G.1 radios were in use by 3rd JaVA and 12th JaVA until the 4th. All DB8A's used their radios when going into combat. I2 LvR used radios on recce flights. Call signs etc. were changed by radio order around the 15th of each month. Ground radio stations, flights etc. used easy recognizable names as call sign. For individual aircraft the last digit of the serial might be added.

**Bomb racks:** Thanks to Minister van Dijk, the selection, purchase, and license production of bomb racks was delayed so long that only two T.5 s had modern racks. The others were equipped with racks originally scheduled for use on the three F.7a/3m and six impressed KLM aircraft. In the twenties and early thirties, the plan was to convert KLM aircraft to bombers and bomb racks had been bought for that purpose.

**Cockpit heating:** No ML aircraft had cockpit heating. This gave many problems, especially in the severe Winter of 1939/40. D.21's, T.5's and G.1's often flew very high (8000-9000 meters) and occasionally oxygen failed due to the cold. Surprisingly, there were no accidents! But, a former T.5 pilot told me that now and then a crew member lay "blue" on the floor, and the only remedy was a quick dive to lower altitudes. To make matters worse, the T.5 was extremely drafty.

**Guns:** The LVA originally had fixed Vickers and flexible Lewis guns. In the late thirties these were replaced by the FN Browning. First the fixed guns were replaced, later the flexible ones. The latter conversion was in process in the G.1's in 1940. The G.1's were delivered with Lewis for the rear gunner. As there were many Lewis available, five were used in each T.5: one for the 2nd pilot, one for the tail gunner, and three amidships in the side windows and a floor hatch. The T.5 were have turrets, but these was still being worked on in 1940.

The T.5 front gun was to have been the Swiss Solothurn 20 mm antitank rifle with a 5-round clips. This remained from the requirement to use the T.5 as a "Luchtkruiser". The Oerlikon had been considered but required quite a heavy mounting.

## Fokker T.5

The nonoperational T.5's were:

851 "Kerstboom" (Christmas tree), partly cannibalized, but it was intended to make it operational again.

852 Damaged by a hydraulic explosion in December 1938 and repairs were quite advanced.

857 In overhaul at Schiphol.

860 Just back from repair at Fokker after a crash on 3 November 1939.

Not yet armed.

861 Trainer at De Vlijt.

863 In overhaul at Schiphol.

864 In repair at Fokker after a crash at Schiphol mid April 1940

## Douglas DB8A/N

This was the most modern aircraft in the ML. During the 9 April Alarm, this was detailed for air defense along with the D.17 (resp. 3V2 and 2V2 LvR) at Soesterberg.

The DB8A's were very hurriedly ferried from Soesterberg to Ypenburg in the late afternoon of 7 May.

**Fokker C.5:** The version with the Rolls-Royce Kestrel was very successful. The bomb load was 200 kg in various combinations, including 25 and 50 kg bombs. Some had a rack for 8 kg shrapnel bombs.

**Production:**

26 C.5d 450 hp HS22 converted to C.5RR, 5 as unarmed trainers.

5 C.5d 500 hp HSS

33 C.6 350 hp HS28 converted to C.5 RR

5 C.5RR from Fokker

2 C.5RR from spares by the LVB

Total acquired: 71 of all types

**Squadron hacks and target tugs:** 1e JaVA used a C.9; 2e JaVA a FK.51; Str.VerVA a C.5HS; BomVA initially used two C.5HS plus a FK.51 as a meteorological plane.

F.7a/3m: 802 was at Haamstede, 803 most likely was at Schiphol. 801 and 803 were to be retired in 1940 after two more Fw 58 were received. 801 may have been retired already. 803 is mentioned in a logbook in May 1940.

FK.46: This type flew in ML markings in 1937 but was rejected. One Bücker Bu 131 Jungmann was bought.

FK.49: Remained at Soesterberg on 7 May 1940, along with C.8 655 and G.1 Wasp 349 (with a defective engine).

Fw 58: Two at De Vlijt, one in repair at Schiphol, one at Waalhaven (but it was based at Ypenburg)

**Fokker G.1 Mercury Jachtkruiser:** Eight front guns in two groups of four. The rear cockpit was cramped. The gunner/wireless operator had to turn himself around to work the radio, which thus was no use in combat. The plane had no intercom. This was improvised with a rope with clothes pegs. In the 3rd JaVA, some resourceful radiomen had improvised in intercom on the radio. For communication with the pilot the gunner could use the direction lights, intended to inform the pilot during a bombing run. Intercom sets had been ordered.

The G.1 Mercury was a bit nose heavy, due to the eight guns and 4000 rounds of ammunition in the nose.

N.B. The type designations G.1A and G.1B are the invention of a later time and are not official.

**Fokker G.1 Wasp:** Spain had ordered (via Estonia) 25 aircraft plus the prototype. Payments from Spain stopped once the Civil War was over and before any G.1 Wasps had been completed. The batch was then offered to Estonia and Finland. The former had no interest, nor did Finland. General J.F. Lundqvist, the C.O. of the Ilmavoimat, advised Fokker to sell the batch to the ML.

Fokker was still working on the Ontwerp 164, a recce plane, and De Schelde was working on the S.24, a pusher recce plane. The readily available G.1 Wasp was just what the ML wanted.

Six were delivered unarmed in Jan.-Feb. 1940 for training. Of these, V2 LvR received four. 341 had an accident and was returned to Fokker. The G.1 Wasp needed some modification for Dutch armament and equipment. In May 1940 several were armed and nearly ready in the factory at Schiphol. Therefore, four could be delivered 13-14 May. In other Fokker workshops were also armed G.1 Wasp. Most were over 95% completed. Armament was available: FNBrownings for the fixed armament and Lewis guns for the gunner.

**Remarks:** Kpt. van Zwieten argued that D.21 pilots mostly flew their "own" aircraft and that only patrol leaders would have radio. Neither can be confirmed. For example, D.21 229, in which Sgt. Roos was shot down, had a radio which was salvaged with the wreck - he was not a flight leader. Some pilots may have had their "personal" aircraft but never for long. That must have changed when a plane was in overhaul.

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**Les Crusader Français en Action**, 2eme edition, by Jean-Marie Gall. Collection Histoire de l Aviation #16. Lela Presse, 29 rue Paul Bert, 62230 Outreau, France. E-mail: lela.presse@wanadoo.fr. Web Site: www.avionsbateaux.com. ISBN 20914017-19-7. 368 pages, a bazillion photos, hardbound.

At first glance, this book may appear to be a 'coffee-table' photo book with page after page of excellent photos, the great majority in color. Not that there is anything wrong with a photo book, but on closer examination it turns out also to be a cracking good read. Three cheers to Lela Presse for providing English captions for all the photos and the 18-page English summary that is both informative, humorous, and extremely well written - probably the best translation I've had the pleasure of reading in recent times.

Let's get the question of small-air-force interest out of the way first. The only nation, other than the USA and France, to use the Crusader was the Philippines. The book contains a 5-page section that includes 11 color photos of the F-8 in service with the Philippine Air Force. (This section was produced with the participation of the late Bert Anido.) It is interesting to note that "The Crusaders quickly begun to show drastic deterioration in the humid Philippine environment." - something I would not have expected for a aircraft designed to operate in a salt-water environment.

To give some idea of the breath of coverage, the chapter title are: 1) Curriculum vita (Birth in the United States) 28 pages with discussion of the USN, USMC, civilian, NASA use of the F-8s and the one-off two-seater and Crusader III; 2) Le Crusader francais (Into service in the French Navy) 44 pages; 3) Crank, ignite, idle (Crank, ignite, idle, is a rough translation) 11 pages; 4) Les homes (The men) 16 pages; 5) A bord! (At sea!) 24 pages; 6) En ravitaillement en vol (In-flight refueling) 7 pages; 7) Rencontres en tris dimensions (Three-dimensional meetings) 15 pages; 8) Armament (Armaments) 32 pages; 9) Entre reve et realite (The future) 11 pages; 10) Vues d ici ou d'ailleurs (Sometime someplace) 24 pages; 11) Crashes (Crusader crunch) 21 pages; 12) Petite histoire de la 12F (Sidelights on history of 12F squadron) 13 pages; 13) Petite histoire de la 14F (Sidelights on history of 14F squadron) 19 pages; 14) Derniers vols (Last flight of the Crusader) 13 pages; 15) Technique (Engineering) 18 pages; and 16) Photoscope (Modelers section) 41 pages. The Annexe consists of: Glossaire (Glossary) 13 pages; For English speaking fans only (Reserve aux Anglophones) 18 pages; Bibliographie et references (References and bibliography) 3 pages; and Remerciements (Acknowledgements).

I think it would be useful to quote the author to illustrate the excellent translation. First, the purpose of the book: "I don't pretend to present an exhaustive study of the F-8E(FN) Crusader or of the operational life of the two squadrons who flew it. I just want the reader to share the numerous trilling moments I have appreciated as a fighter pilot on the world's fastest single-engine shipboard interceptor." He accomplishes this very well as seen from the following account of his first flight in a Crusader: "It's the moment when anxiety makes it last breakthrough: the hands sweat and the skin quivers. At that time, you cut the cord that links you to the earth. Everything changes, the world and its dimensions. The unknown scares you, but the pleasure is there. You creep in every nook and cranny of the aircraft. You feel the Force hidden under this 14 ton steel armor."

The French Navy received 42 Crusaders, and 27 of

them were lost in accidents. Each accident is covered with a photo of the aircraft (either before or after the accident) and descriptions of the cause and the results.

Modeler's Note: The French Crusaders differed from the USN version in having boundary-layer control (BLC) to reduce takeoff and landing speeds enough to allow operations from the small French aircraft carriers. "The nose-down pitching moment due to the BLC was counteracted by the extension of the horizontal tail area from 50.60 to 66.11 sq ft." Anyone planning to model the F-8E(FN) should consider if this 32% increases in area would be worth the effort to correct. The book contains an excellent 3-page 1/72-scale multi-view drawing that allows the proper tail plane to be scratch built, if deemed necessary. The modeler will also appreciate the many photos showing interior and exterior details. And, if you like building models but hate adding the details and painting them, the photos of Crusaders cocooned for shipment to France might give you some ideas.

**Les Crusader Francais en Action** is an excellent book, both for its pictorial content and for the quality of its text. And, inability to read French is no handicap. Highly recommended for anyone with the room for one more book in their library.

Review copy graciously provided by Michel Ledet, the publisher.

**Polikarpov I-15bis**, by Mikhail Maslov. Wydawnictwo Militaria #199. Wydawnictwo Militaria, 42 skr. Pocz. 106, 00-961 Warszawa, Poland. (2004).

The I-15bis was the second in Polikarpov's family of three little biplane fighters that included the I-15 and I-153. Both of these latter had gull wings, but the I-15bis (sometimes erroneously called the I-152) was a standard biplane with upper wing supported on center-section struts. Besides service with the Soviet AF against the Luftwaffe, Japanese, and Finns, the I-15bis participated in combat with both the Nationalist and Republican during the Spanish Civil War, with the Chinese AF against the Japanese, and with the Finnish AF against the Soviets.

While this book does cover the service history of the I-15bis, there is not much of this history that hasn't been covered in many other sources. However, the main advantage of this book is its coverage of the developmental history of the I-15bis with excellent 1/48-scale drawings of it derivatives including many not previously know to this reviewer. The book consists of 58 A-4 size pages bound between sturdy soft covers. There are 11 color side-view drawings [Soviet (6), Finnish (1), Spanish Republican (2), Nationalist (1), and Chinese (1)]. The 1/48-scale drawings occupy two pull-out pages equivalent to 8 sides. Unusual types illustrated in photos and scale drawings are the I-15bis TK with a supercharged engine, the I-15bis GK with pressurized cockpit, the I-15bis DIT two-seat advanced trainer, an I-15bis with a fully enclosed canopy, the I-15bis PWRD with two under-wing ramjets, an I-15bis with under-wing 50-liter fuel tanks, and an I-15bis with an under-fuselage fuel tank. Any of these would make a nice addition to any collection of models of Soviet aircraft. If you're interested in something more exotic, there are side-view drawings of two I-15bis mounted above an MTB-2 and two mounted above a GST flyingboat (Since the GST is a Soviet-built PBY, and since an inexpensive 1/72-scale kit of the I-15bis is available from Encore, this latter would be an interesting project

for the adventurous modeler who happens to have a spare Academy PBY-2 kit laying around.)

While most of the 92 photos are of the I-15bis in Soviet service, the small air forces are not neglected: Finnish (4), Spanish Republican (1), & Chinese (1). There is even a photo of an I-15bis of the Mongolian AF, but, unfortunately, no markings are visible. All photos have English captions and the English summary is a short but concise description of the development and combat operations.

One quibble that does not detract from the value of this book is the cover painting of a Finnish I-15bis. In the painting, the squat I-15bis look more like an elegant Fokker C.X. The cover aside, Wydawnictwo Militaria #199 can be highly recommended to anyone interested in Soviet aircraft.

Review copy graciously provided by the publisher.

**Northrop 8A-2**, by Sergio Bontti. Serie Fuerza Aerea Argentina #8. Editor: Jorge F. Nunez Padin, e-mail: marauder@satlink.com.

This latest in the series on aircraft of the Fuerza Aerea covers the little-known history of the Northrop attack plane used by the Argentine Air Force. In the usual format of the series, this volume consists of 28 pages with the text entirely in Spanish. Not needing translation are the 29 photos, one color 2-view drawing and 2 color side-view drawings. These are reproduced on high-quality glossy paper providing 'Kodak-quality' prints. Chapters are: "Historia", (9 pages), "Tecnica" (one page), "Colores e Insignias" (one page), and "Historias Individuales" (3 pages).

Thirty 8A-2 were delivered to the Fuerza Aerea in 1938 and were given serials 401 to 430. They served until 1948; first in an overall bare-metal finish with blue-white-blue roundels and rudder stripes with the Argentine sun on the white field. The serials were in black on the fuselage aft of the roundel and on the upper surfaces of the wing reading from the front on the port wing and from the rear on the starboard wing. Later they were camouflaged with olive green upper surfaces and light blue undersurfaces. Roundels were carried on the fuselage and on the upper surface of the starboard wing and the lower surface of the port wing. A small Argentine flag was carried on the rudder. The serials, now white, were painted on the forward fuselage, on the vertical fin, and on leading edge of the wing. The serial was also carried on the undersurface of the wing, but in black. On the camouflage aircraft, these serials were prefixed by a 'A-' when the aircraft served with an attack squadron and by an 'O-' when serving with an observation squadron.

This booklet is a must for anyone interested in Latin American aviations. It is also highly recommended to everyone interested in military aircraft serving immediately before WWII. [Ed: This book is available from the SAFCH Sales Service.]

Review copy graciously provided by Jorge Nunez, the publisher.

[Ed: At first glance it might appear that a model of an Argentine 8A-2 can easily be made using the 1/72-scale MPM kit of the Northrop A-17 (KitNo 72504). However, there are two major differences that need to be considered. (1) The A-17 lacked the "partially retractable bomb-aiming tub beneath the radio-operator/gunner's cockpit" that is obvious in all photos and side-view drawings of export 8As. Since the Argentine books lacks a drawing of the underside, scratch building this 'tub' would be pretty much a guess based on the views from the side. I

cannot find any drawings of this 'tub' in my references. Can anyone help? I'd like to publish drawings in SAFO. (2) The engine cowl on the Argentine 8As was significantly different from the A-17, being more rounded in profile. Its shape is similar to that on the more familiar Swedish 8As. Until the Swedes come out with an after-market cowl (or MPM releases a Swedish 8A) this problem will require some ingenuity to correct.]

**S-55/H-19 & S-58.** Serie Aeronaval #17, by Jorge F. Nunez Padin. Editor: Jorge F. Nunez Padin, e-mail: marauder@satlink.com.

Jorge continues his series on Argentine naval aircraft with the story of the Sikorsky S-55. This 32-page booklet is entirely in Spanish, but the 27 b&w photos, 5 color photos, and 5 color side-view drawings need no translation. As usual, these illustrations are printed on the high-quality glossy paper resulting in 'Kodak-quality' prints.

The chapters are: "Historia" 5 pages, "Operaciones Antarticas" 3 pages, "Technica" (2 pages), "Historias Individuales" 2 pages, and "Colores e Insignias" one page.

Thirteen S-55/H-19 and one S-58 were used by the Argentine Navy. These carried two different color schemes: (1) An overall Azul Oscuro (Insignia Blue FS15044) with white serials and inscription 'Marina de Guerra' and with either International Orange (FS12197) or yellow nose and tail boom. (2) Overall white with red trim. These helicopters saw extensive use in the Antarctic carrying the inscription 'Grupo Aeronaval Antartico'. The photos of the S-55 operating in Antarctica are most evocative and will provide the diorama builders with the inspiration for some 'real cool' projects.

This is another excellent book from Jorge and is highly recommended to anyone interested in Latin American aviation (even if you're not a whirly-head.) [Ed: This book is available from the SAFCH

Sales Service.]

Review copy graciously provided by Jorge Nunez, the author and publisher.

**F4U-5, -5N & 5NK Corsair**, by Jorge F. Nunez Padin. Serie Aeronaval #18. Editor: Jorge F. Nunez Padin, e-mail: marauder@satlink.com.

More has probably been written about the Corsair than any other Argentine aircraft. [Ed: For example, see the excellent article in Air Magazine, November 2003.] However, Serie Aeronaval #18 is still a welcome addition to my library partly because most of the photos are new to me, but mainly because the book is so well done, with 40 b&w photos, 7 color photos, one color 3-view drawing, and 2 color side-view drawings reproduced as 'Kodak-quality' prints.

Twenty seven Corsairs were used by the Argentine navy; s/n 0374 to 0395 and 0432 to 0435. During their service career, they carried two color schemes. (1) Overall Sea Blue (FS35042) with that complicated navy roundel on the fuselage, large white 'anchors' in four wing positions, blue/white/blue rudder stripes with the Argentine sun on the white field, white codes on the fuselage (e.g. 3-A-204), white 'Armada Nacional' and code (e.g. 204) on the cowl. (2) Later they were painted Light Gull Gray (FS36440) over Insignia White (FS17875) with extensive areas of black for the antiglare panel and behind each exhaust. The 'anchors' and codes were now black.

The text of this 40-page book is entirely in Spanish. The chapters are: "Historia" with subsections "La 'Comision Corsario'" and "El Accidente del F4U 0390/3-A-210" (a total of 8 pages), "Technica" with subsection "Cohete HVAR" (a total of 3 pages), "Historias Individuales" (6 pages), "Preservados" (one page), and "Colores & Insignias" (one page). My favorite photo is the one of aircraft 0433 with code 3-A-204 on the fuselage and 214 on cowl.

If you take a model of this aircraft to a contest, you better have the photo along to show the judges.

This book is highly recommended to all students of Latin American aviation, all lovers of the Corsair (and who isn't), and anyone wanting to have a complete set of the Serie Aeronaval. [Ed: This book is available from the SAFCH Sales Service.] Review copy graciously provided by Jorge Nunez, the author and publisher.

**Lockheed Hercules Production List 1954-2005**, 22<sup>nd</sup> Edition, by Lars Olausson. 164 pages, spiral bound.

This newest edition of this labor of love updates the production list to s/n 5606/13, eight CC-130Js for the USAF. The 'destroyed' list is updated to September 19, 2003, when Mexican Air Force 3025 crashed near La Quemada, Mexico, after an in-flight fire. "3025 was delivered to the USAF in August of 1957. It was transferred to the FAM in August 1987." The usual cross-referencing allows you to follow the history of any C-130 if you know the serial number, or in the case of civil aircraft, the registration alphanumeric. A table of "Government Operators and Owners" allows you to find the s/n's of all the C-130s operated by any country's air force. For example, the Polish C-130Ks (s/n 4200, 4203, 4210, 4212, 4258, & 4263) which were originally delivered to the RAF in 1967/68 were still at Sussex County Airport, Delaware, "on behalf" for Poland as of May 2003.

The review copy of this fantastic book can be obtained from the SAFCH Sales Service on a first-come-first-served basis. Others should be ordered directly from: Lars Olausson, Box 142, S-530 32 Satenas, Sweden. US\$20 cash, airmail included. ("No cheques, please. My bank charges is \$17!" For further information: e-mail: larso@alfa.telenordia.se.

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**Aviation History.** 741 Miller Dr. SE, Suite D-2, Leesburg, VA 20175, USA. E-Mail: Aviation-History@thehistorynet.com. Web Site: www.The-HistoryNet.com. Bimonthly. Newsstand price \$4.99. Yearly subscription: \$23.95 USA or \$47.95 foreign.

The first issue I've seen of this magazine arrived in the mail a few days ago. While this issue, devoted entirely to celebrating the centennial of flight is probably not representative its usual contents, it is an entertaining issue and will be reviewed here while awaiting future issues.

**November 2003: First Flight Centennial.** "The centennial of powered flight has inspired several projects to reprise the Wright brothers' feat" 2 pages with one photo. "In 1908 teenage German pioneer Wilhelm Meiswinkel built his first successful man-carrying biplane" 2 pages including one photo. "New Zealand's eccentric 'Bamboo Dick' Pearse gained a reputation as a heretic - and a madman" 2 pages including one photo. "The Promise of Flight Fulfilled: Far from being hailed as successful innovators for the achievements at Kitty Hawk, Orville and Wilbur initially faced the widespread disbelief of the public" 7 pages including 8 photos. "Build Your Own Wright Flyer" one page on building the Monogram kit including one photo of the completed model. "The Wright Brothers' Mechanician: Without the help of a self-

taught Midwestern mechanic, Orville and Wilbur Wright might never have achieved their dream" 7 pages including 7 photos. "Standing on Orville and Wilbur's Shoulders: At the 100<sup>th</sup> anniversary of the Wright's first flight, it is useful to speculate on the influence they had not only on aviation but also on history as a whole" 7 pages including 11 photos and illustrations. "Quest for Flight: Imitating Mother Nature: Long before the Wright Flyer took to the air, researchers looked to the natural world for clues to unlock the secrets of flight" 7 pages including 6 illustrations. "Reviews: Celebrate the centennial by sampling the current crop of books on pioneering aviators" 2 pages. "Art of Flight: 'Success on the Outer Banks' was created to commemorate the beginning of a century of flight" 2 pages including one painting. "The National Air and Space Museum has an expansive new home for its dazzling collection of planes and spacecraft" 3 pages including 6 photos. "Legacy of Flight: 98 Years Ago This Month" one page including a evocative painting of Katherine Wright brings a picnic lunch out to her brothers at their Huffman Prairie flying field.

The subtitles of the articles pretty well summarizes the content of the articles. However, I like to make a few additional comments on three of the article: (1) "Standing on Orville and Wilbur's Shoulders" is a provocative essay that attempts to show that all

of the Wright's competitors were on the wrong track and if the Wrights had failed it would be another ten year before controlled powered flight was achieved. The author makes a very good case for this hypothesis. He then goes on to argue that if flight was not achieved until 1913, Germany would probably have won World War One. Agree with this, or not, he is entitled to his 'what if' scenario. However, he then goes overboard trying to convince his readers that much of the Wright's technology is still in use today. The fact that this last section is rather silly does not detract for the overall usefulness of this article. (2) "Quest for Flight: Imitating Mother Nature" is a real hoot. The ideas people had for making a flying machine are hilariously naive. Of particular interest is a reproduction of a table from 1881 illustrating 60 proposed flying machines from Di Vinci's proposal of 1500 to Edison's 'grand navire aerien' of 1880. (3) In "Art of Flight", aviation artist Keith Ferris describes how he approached painted a picture of the Wright's first flight.

Although this issue contained no small-air-force information, it is nevertheless entertaining with well-written articles and good photos and illustrations. Its worth checking it out at your neighborhood newsstand.



**PZL P.24G**, 1/72-scale injection-molded kit with decals. Broplan MS-90. Broplan, ul. Pilotow 10G/33, 80-460 Gdansk, Poland. E-mail: [broplan@wp.pl](mailto:broplan@wp.pl).

The PZL P.24 was the last in the line of elegant Pulawski-designed gull-wing fighters. The series-built variants, which ran from the P.24A to P.24G, served with the air forces of Turkey, Bulgaria, Romania, and Greece. Up to now, the only readily available 1/72-scale kit of the P.24 was the P.24F/G by Encore (Kit Number 1015). (One Polish source describes the Encore kit as "poor quality", most likely because of the clunky molding and mushy surface detail.) Now, Broplan has released an injection-molded kit of the P.24G with a P.24F promised as their next releases.

The Broplan kit comes in a sturdy box with an attractive color illustration of a Greek P.24G in the top. The kit is injection molded on three sprues of dark green styrene containing 35 parts. These parts are well molded with, as expected for a 'short-run' kit, a significant amount of flash around the smaller parts. Surface detail consists of finely-raised panel lines on the upper surface of the wing and raised span-wise 'ribs' on the lower surface of the wing. Although engraved lines would have been better for the panels, this accurately represents the wing construction of the P.24 which did not use the corrugated surfaces of the earlier Pulawski designs. (Encore got this incorrect by trying to represent the corrugations on the upper surface of the wing.) The shape and dimensions of the kit compare well with published 1/72-scale 3-view drawings.

Interior detail consist of sidewall detail molded on the inside surface of the fuselage halves. Separate parts provide the floorboards, rudder bar, control column, seat, and headrest. Two vacuformed cockpit canopies are provided, so if you're careful in cutting them out, you'll have one to replace the injection-molded canopy in the Encore kit.

The instruction sheet consists of Broplan's usual language-independent exploded construction diagram and side- and top-view drawings of three Greek P-24G: (1) Black 'delta' 116 at Athens-Tatoi in 1938. This aircraft is overall aluminum with blue/white/blue vertical rudder stripes and Greek roundels in the usual four positions on the wing. (2) White 'delta' 112 in April 1941. This aircraft is camouflaged in Light Earth and Field Green with Pale Blue undersides. Greek roundels are on the fuselage and on the undersurfaces of the wing. (3) Black 'delta' 102 at Argos, April 1941. This aircraft is in the same colors as 'delta' 112, but with a different camouflage pattern.

A small (90 mm by 50 mm) decal sheet provides the serial numbers for all three aircraft, but only enough roundels and 'PZL' logos for one aircraft. These decals are well printed in perfect register with an accurate shade of blue. (The P.24F kit will use the same decals.)

The Encore kit, called a P-24F/G, contains decals for a Bulgarian P.24F, a Greek P-24G, & a Romanian P.24E. I can find no reference to the P.24F being used by Bulgaria, and using this kit to produce a model of a Bulgarian P.24B or a Romanian P.24E requires two engine cowlings of noticeably different shape (as does a Turkish P.24A). Reference (1) includes 1/48- and 1/72-scale decals with the markings (no national insignia) for Turkish, Bulgarian, Romanian, & Greek P.24s. If Broplan is not planning to produce kits of these variants, they should consider producing cowlings for the 'after-market' market. Otherwise, to build models in the markings of a country other than

Greece, you either will have to scratch build the cowl (I wish I had bought that small lathe when I had the chance!) or try to find something suitable in the box of spare parts.

Broplan's P.24G kit will be welcomed by modelers building up a collection of Polish aircraft. Broplan will follow this kit with one of the P.24F with decals for other Greek machines. One can hope that they will follow this up with more injection-molded kits of Polish aircraft.

Review kit graciously provided by Janusz Brozek of Broplan.

**References:** (Be careful when using the drawings in the English-language references. The artist didn't always appreciate the difference between the versions of the P.24.)

- (1) PZL P.24A-G, by Andrzej Glass. Kagero Books. Polish & English Text. Includes decals (2004).
- (2) PZL P.24, by Przemyslaw Skulski. Seria 'Pod Lupa', Ace Publications (2002).
- (3) PZL P.24, by Andrzej Glass. Wydawnictwo Militaria #2 (1994).

The Era if the Gulls: The Chronicles of the Pulawski Fighter Line , Air Enthusiast #28 ((1985).

(3) The PZL P.24, by Jerzy Cink. Profile Publications (1967).

**Dewoitine 338**, 1/72-scale vacuformed kit with injection-molded parts. Broplan MS-89. Broplan, ul. Pilotow 10G/33, 80-460 Gdansk, Poland. E-mail: [broplan@wp.pl](mailto:broplan@wp.pl).

The Dewoitine 338 is probably the most elegant trimotor passenger aircraft ever to have flown. And, it is probably one of the aircraft that everybody assumed would never appear as a kit. But, here it is from Broplan, and what a nice kit it is.

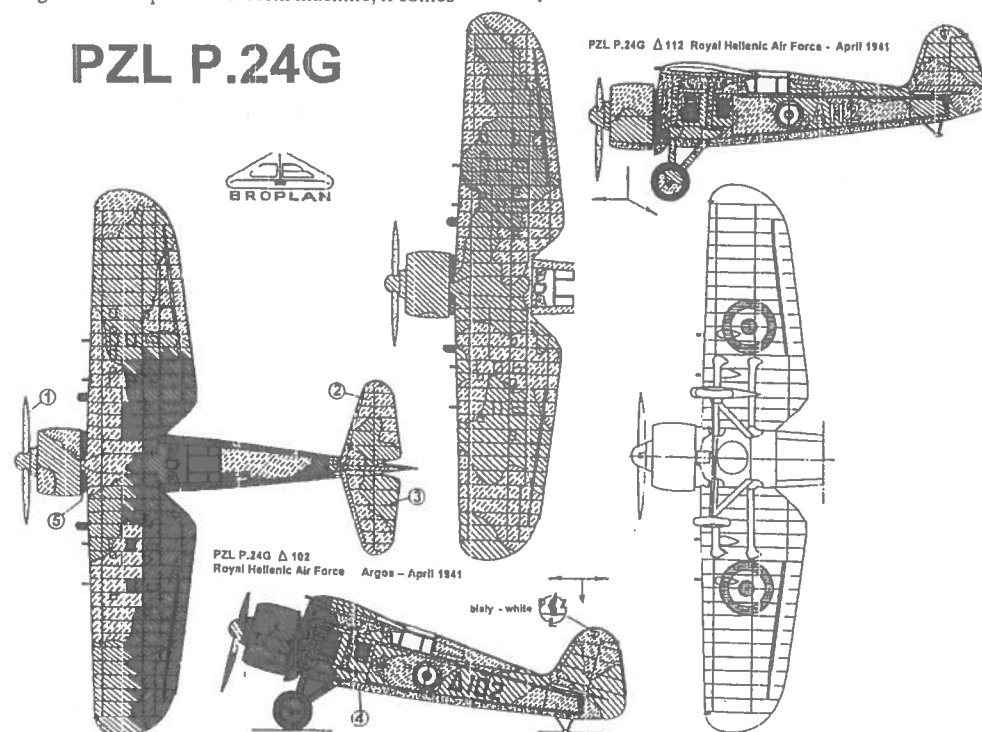
Packaged in a box with a color drawings on the top are five sheets of white styrene, four 120 mm by 220 mm and one 6 mm by 220 mm, which provide all the major parts. These vacuumformed parts are sharply molded with good surface detail; the detail on the wing is especially beautiful. Since the fuselage is longer than Bropfan's vacuumform machine, it comes

in four parts. The front and rear sections are constructed in the usual way and then joined just behind the passenger cabin. The well-engineered joint should provide a strong connection and, with care, perfect alignment can be obtained. A sturdy spar allows for a strong wing-fuselage joint and ensures the proper dihedral.

Interior detail in the cockpit consists of a floor, rear bulkhead, two seat and control columns, instrument panel, and center console. There is no detail in the passenger's cabin. The vacuformed clear parts consist of the cockpit windows and the long rows of windows in the passenger's compartment. These parts are clear, but not much of the cockpit interior, and none of the inside of the passenger cabin, will be visible through these small windows. Two small sprues (10 cm by 10 cm) of injection-molded parts provide all of the small parts including engines, cowl fronts, propellers, etc. The molding is sharp with just a hint of flash. These two sprues are identical (to save on the cost of molds) so you get 4 propellers, 4 engines, etc. - a painless way to build up your box of spare parts.

The instruction sheet consists of the usual excellent Broplan exploded construction diagram and drawings of the color scheme for three aircraft: (1) D.338 #6, F-AQBF 'Ville de Strasbourg' of Air France in Indochina, June 1941. Besides the civil registration, it carried large French flags on the vertical tail, fuselage, and in four positions on the wings. (2) D.338 #24 F-ARIB 'Ville de Nantes' Air France during the Vichy period. It carries rudder stripes, a yellow vertical and horizontal tail and wing tips, and the Vichy red/white/blue stripes around the fuselage and under the registration on the fuselage. (3) D.338 #7 F-AQBG 'Ville de Damas' Republique Francaise 1945. It carries rudder stripes and roundels in the usual six positions. Unfortunately, decals are not included with the kit. Broplan's Dewoitine 338 is an excellent kit that will make into a model that will attract attention on any display table. However, it is not recommended for anyone faint of heart or without experience in building vacuform kits.

Review kit graciously provided by Janusz Brozek of Broplan.



**Jambock Squadron** (Brazilian Expeditionary Force in Italy P-47D). 1/48-scale decals. FCM Elite Wet Transfers. 48-20. [www.webspace.com.br/fcm](http://www.webspace.com.br/fcm). On two sheets (145 mm by 190 mm) are all the national insignia, the unit badge, serial numbers, code numbers, mission markings, inscriptions, and stenciling to allow the modeler to build any one of the P-47Ds flown by the Brazilian Expeditionary Force in Italy in 1944 as part of the 350<sup>th</sup> USAF Fighter Group.

The instruction sheet contains 8 color and 4 black-and-white side-view drawings of BEF P-47Ds, each identified by the name of the pilot. Ten of these aircraft are camouflaged in olive drab over neutral gray while the remaining three are in natural metal. Three examples of the attention to detail by FCM are: (1) The color side-views of camouflaged aircraft (B6, A4, C1, C5, & D4) are accompanied by a color top-view drawings showing the Brazilian star (with bar) on the port wing and the star (without bar) on the starboard wing. [Ed: I built a 1/72-scale 'C1' twenty-some years ago without any insignia on the starboard wing. It will be easy to correct this now if I can find the correct size Brazilian star.] (2) A top-view drawings of the natural metal aircraft (A1, 1, & 2) show these aircraft carried the Brazilian star (with bar) on the port wings but no insignia on the starboard wing. (3) The black-and-white side views of camouflaged aircraft (A1, C3, C4, & 'Arlette') are accompanied by a top-view drawing showing these aircraft carried the Brazilian star (with bar) on the port wing and no insignia on the starboard wing.

The instruction sheet leaves the question of the placement of insignia on the undersurface of the wing unclear. The side-view drawings of the natural metal aircraft show no insignia on the underside of the port wing, while all the camouflaged aircraft (except A1) are shown carrying the Brazilian star without bar or blue disc. The issue is confused by a bottom-view drawing showing a Brazilian star without bar or blue disc on the port wing and a Brazilian star with without bar on the starboard wing with the note, "Only for Nero Moura aircraft" (but the side-view of Nero Moura's natural metal '1' show no insignia under the port wing. [Ed: Perhaps one of our Brazilian readers can clear up the question of the under-wing insignia.]

"DO NOT WORRY ABOUT THE THICK FILM, IT IS ONLY MAKING WAY". With this notice, FCM introduces its new innovated decal system in which the decal is applied in the usual way, but after it is dry the carrier film is removed leaving the decal with a 'painted-on' appearance. I haven't tried this system, but a review of another new FCM decal describes one modeler's experience with these new decals.

[Ed: The following review was found on Robert Baumgartner's web site. It is reprinted here with Robert's permission.]

**Fokker D.VII, 1/48-scale decals.** FCM Elite Wet Transfers. 48-18.

Having not tried their product before, I was keen to see how the 'wet transfers' would perform. Upon inspection, one is presented with a sheet that doesn't just contain the aircraft's markings. Here we find a nice selection of instrument faces including the compass, fuel gauge, two types of instrument panel, three different weight tables, and Axial prop logos. Printing was good on my example with the colours not being the overly bright renditions seen elsewhere.

The first thing you notice when looking at the sheet is what appears to be a very thick carrier film. The builder need not worry here, as this is not the traditional water slide decal that most modelers are used to. The 'decal' is floated onto the model in the usual fashion and then pressed down to remove any air bubbles. After waiting a suitable time for the transfer to dry, the protective carrier film is carefully lifted at one edge and pulled away. The result is an image that looks painted on. No surrounding carrier film, just the image.

Decal setting solutions can be used but I found them unnecessary. Besides, it only makes the carrier film harder to remove! To ease this, I suggest sliding a slip of paper under one edge of the clear film straight after the transfer has been applied. If the instructions are followed correctly, there is no risk of the image being pulled off the model. Thoughtfully FCM give you a small sheet of markings where you can practice using the product. FCM recommend the Roden, Revell or Dragon kits for the Fokker D.VII. As these kits have differing dimensions, it will pay to test fit the required marking on your subject before you commit yourself to application.

When compared to the Roden offering, the fuselage markings fitted as if they were designed for this kit. The 'G' and 'S' personal markings also fitted the wings very well. Although the underside versions fitted their location perfectly, the upper wing crosses are a little short for the Roden kit. This is not really a problem as the kit items can usually replace the latter.

#### Marking Options

1. Fokker D.VII (Albatros built), Lt.n.d.R. Hermann Gilly, Jasta 40. Hermann Gilly joined Jasta 40 in April of 1918 and it was here that he scored all of his 7 victories. He survived WWI to become a Major in the Luftwaffe of the second great conflict. His machine was an Albatros built example and is thought to have been covered in 4-colour lozenge.

2. Fokker D.VII (Albatros built), Lt.n. Carl-August von Schoenebeck, Jasta 33. He gained his first three

victories with Jasta 11 and scored a fourth after transferring to Jasta 59. When he finally did arrive at Jasta 33 he gained four more victories, which brought his final tally to 8. Interestingly his first aerial conquest was the famous triplane 'Black Maria'. This had previously been Raymond Collishaw's 18-victory aircraft although on this occasion it flown by FSL G. Roach.

3. Fokker D.VII (Fokker built), Uffz. Fritz Haack, Jasta 46. Builders should note that this was a BMW powered aircraft and if using the Roden kit, engine parts V3 and V4 apply. It's nice to see that FCM didn't forget the necessary 'G' marking that was found underneath each wing.

4. Fokker D.VII (Albatros built), Vzfw. Oskar Hennrich, Jasta 46. After joining Jasta 46 in May 1918, Hennrich soon became its highest scoring pilot with 20 victories, 13 of which were balloons. Note that this machine was also BMW powered. Interesting the lower wings are said to be OAW built even though the rest of the airframe is attributed to Albatros.

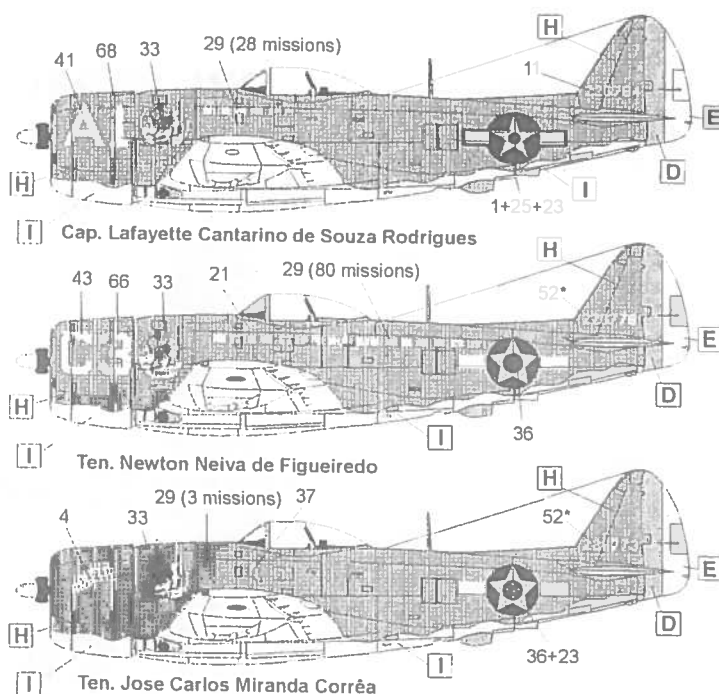
5. Fokker D.VII (Fokker built), Jasta 26. Sadly this striking Jasta 26 machine must remain pilot less. What is assumed to be the pilot's personal marking is present on the fuselage and in this case is the number 5. JG III practice was to repeat this on the top wing and again FCM correctly supply this.

6. Fokker D.VII (OAW built), MFJ III. The Marine-Feldjagdstaffeln was the source of some of the most spectacularly coloured D.VIIs and this one is no exception. Believed to be 4499/18 and the mount of Vizeflgmrstr. Franz Mayer, it was this aircraft that allowed him to score his 4<sup>th</sup> victory.

Conclusions: I really enjoyed trying these decals and found the results to be very satisfying. Don't be put off by the appearance of what looks to be a layer of thick carrier film as this is not the traditional water slide decal.

The references used are the Albatros Publication series on the Fokker D.VII so the accuracy of the schemes is as good as one is likely to get barring further information coming to light.

Highly Recommended



"I have some remarks concerning the article on the Dutch Lockheed 14 that appeared in SAFO #107. According to "75 Jaar Nederlandse Luchtvaartuig Registers" by Herman Dekker, published in 1997, there were three Lockheed 14 on the Dutch register: (1) PH-APE c/n 1413. Delivered to KLM 15-03-38. Crashed at Schiphol 09-12-38. Struck from register 08-12-38. (2) PH-ASL c/n 1444. Delivered to KLM 19-07-38. Became G-AFYU on 17-08-39. w/o at Malta 21-12-39. And, (3) PH-ASM c/n 1441. Reserved for KLM 1938. PJ-AIL w/o 08-48. PH-ASM was issued to DC-3 c/n 2142 in 1939.

"This makes it clear that there were no Lockheeds 14 in Holland in 1940."  
F. Gerdessen (SAFCH #12), Fijnscheerderstraat 12, NL-4204 ES Gorinchem, The Netherlands.

"I received the latest SAFO issue (#108) and was delighted to see the article on the Cierva C.30. I especially appreciated the part on the Lithuanian C.30. However, a small error was made: On page 119, the references to a 'sea-plane' school at Nida are wrong. Lithuania never had any seaplanes and the school referred to was a gliding and soaring school run by the Lithuanian Aero Club. The school was located just outside of Nida at the foot of the highest sand dune on the Neringa Peninsula.

The reason for locating the gliding school at this location was the soft sand for landing and shallow slope of the dune towards the prevailing winds from the west. The dune was about 145 feet high with a very steep eastern slope. When the wind was from the east, it was possible to do slope soaring at the school. The longest slope-soaring flight was made by Mr. Gysas, a flight of 26 hours duration. Normal gliding flights were made using bungee cords, but for the eastern-slope flights, the gliders were tossed into the air by hand using four men.

"I have visited the school at Nida several times when I was living in Klaipeda, about 30 miles from Nida and there was a ship ferry going to Nida."  
David Dulaitis (SAFCH #913), 1909 N. Pebble Beach Blvd., Sun City Center, FL 33573-5176, USA. [Ed: The mistake was entirely mine. Is my face is red! I should have known 'vol à voile' in the original French translated as 'glider', but it escaped my attention. My apologies to Michel Ledet, the original author.]

"Fabio Duarte, has informed me of a contact where foreign orders for Duarte Kits can be placed. Anyone interested in obtaining Duarte Kits should contact Mr. Odair, owner of Liberty Quality Kits at libertyquality@uol.com.br. He accepts overseas orders for Duarte kits and other Brazilian stuff.

"Now news about IPMS-Brasil: IPMS-Brasil was a 'one man show'. Antônio Linhares founded the Sociedade Brasileira de Plasmimodelistas, as the Brazilian chapter from IPMS in 1973 and he served as its President until he passed away on 5 March 2004. Since its foundation until a few years ago, IPMS-Brasil's headquarters was in his dentist office. Every Saturdays work was stopped and modeling activities went on all day long. Mr. Sergio Onofre, as IPMS-Brasil's Vice-President, has assumed its direction. Books, magazines and other material will be transferred to another place. I'll contact Sergio Onofre and forward the new address for publication in SAFO.

"Modeling in Brazil has suffered a negative impact due to high costs, inflation, negative exchange rates against US\$ and Euro, and prohibitive importation taxes. Several shops have closed. We 'old ones' still remember when Kikoler produced Revell, Airfix and Frog kits in Brazil, not to mention when Tamyia started a small batch of kits but soon left Brazil. Here in Rio de Janeiro, very few places still sell plastic kits. Well, life must go on!"  
Sergio Luis dos Santos (SAFO #1202), Rua Jardim Botânico 647/301, 22470-050, Rio de Janeiro RJ, Brazil.

## -web-

Over the years, frequent mention has been made in SAFO of the work Chris Thornburg has been doing putting together a compilation of all the aircraft types used by all the small air forces. At first, Chris put this in a loose-leaf notebook [The edition I have weighs in at 4.5 lbs (2 kilos)] listing, for each country, the aircraft types, the numbers used, and dates of service. In addition, the names used by the air arms over the years are given and a map indicating the location of military air bases is included. For those countries with indigenous aviation industry, a table presents the names of the companies and their years of operation. More recently, Chris has made this information available on the Internet at: [www.worldairforces.com](http://www.worldairforces.com).

Now, Chris has plans to expand the scope of this work by adding a photograph of each aircraft type in the country's markings. He recently sent me examples of how this would be integrated into his Web Site. But, before describing this, let Chris give some background.

"For the last two years I've been working on getting photos for my Web Site. This is something I've wanted to do for a long time, but I needed to gather together all the components: scanner, knowledge of computers, software, etc. After wandering all over the Web, I decided I wanted to have photos a little larger than a thumbnail, where things are so small you can't even tell what aircraft it is, but not so large that it takes a long time to download. So I settled on something the size of a baseball card (about 2 inch by 3.5 inch).

"Unlike many other sites, I only want one photo for each aircraft. I try to pick the best photo I can find, hopefully one that shows the top of the wing and the side of the fuselage. Also, I want ones that shows the aircraft in service. I'll also include photos of aircraft never delivered or captured as long as they carry national markings. A color photo is preferred, although in many cases I will use a black-

and-white photo if it is a much better photo. I will use more than one photo per type only if there are obvious external differences, e.g. radial or inline engine, landplane or floatplane.

"Some times I've found getting a photo was the first indication I had of the aircraft. Someone sent me a photo of a Helio Courier used by South Korea, something I had not known. I also found a photo of Letov S.328 in Finnish markings, also unknown to me. I contacted a Finnish AF forum and was informed that it was ordered and painted in Finnish markings, but never delivered.

"On my Web Site, I get a lot more requests for information than I get help in filling in the blanks. When people ask for a photo, if I have them scanned already, I've been sending the photos to them via the SAFO Web Site.

"What I would ultimately like is that when you click on an individual aircraft in a certain air force, you get a photo of that aircraft, a color side-view drawing, and a photo of a model - all in the markings of the chosen country. If you click on the country, you get photos of all the aircraft used. And, if you click on a company you get photos of all the aircraft of that company, even though this might include aircraft not used by a small air force.

"One thing I hope SAFO readers can help with is to provide photos of their models. Browsing the Web, I've seen photos of models of aircraft of the small air forces, but they usually list only the model manufacturer and scale, not the markings applied. I've visited the IPMS sites for various countries and usually find only photos of models of German and US aircraft. Hopefully, my Site could be a showcase for the work of modelers with an interest in the small air forces.

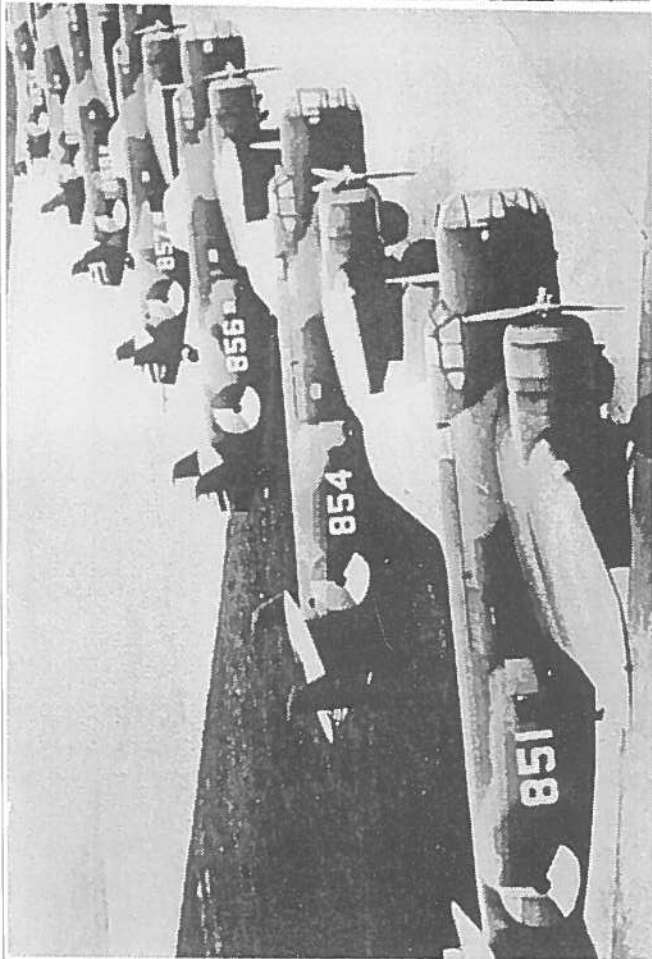
"Currently, my photos are in a scrapbook, since I don't have permission to use most of them. I haven't actively pursued this since I would like to have something close to a finished product. This way people would see that this is not just a

pipedream.

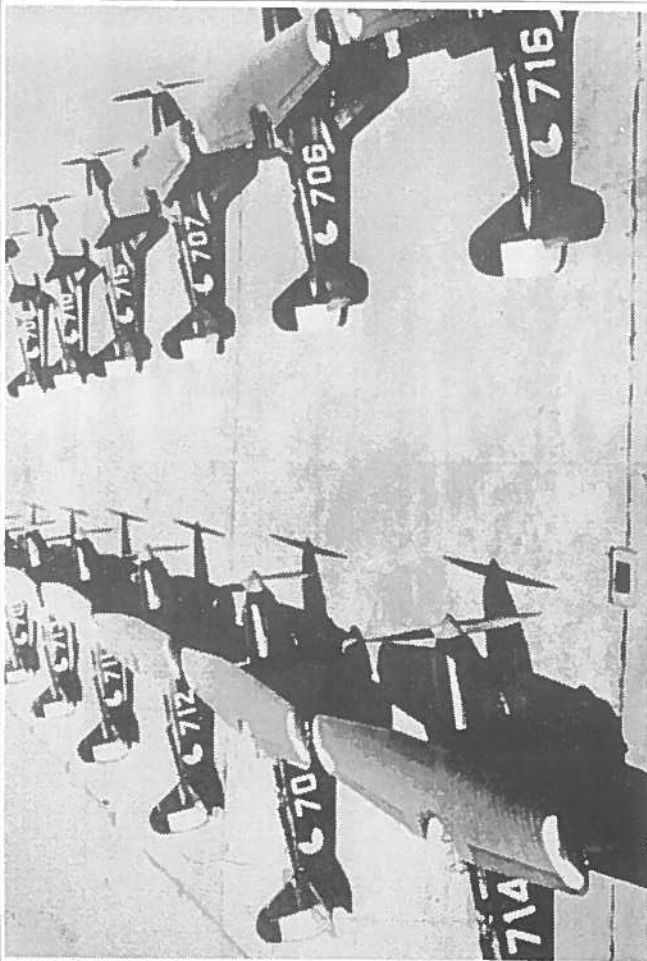
"I explained this all to the gentleman who hosts my Web Site. When I told him how much space I would need, he was shocked by how large it would have to be. I probably could get it smaller, but I would have to learn how to optimize to the maximum. Although my Site is a .com, it's not for making money."

Chris sent me examples of the four ways he intends to present the photos. (1) The first example shows the page that would appear if you were to select an aircraft type for a specific country. The Croatian Bf 109 page has a photo of the aircraft, a photo of a model of the aircraft, and a color side-view drawing of the aircraft. (2) The second example shows what you would get if you were to select a country. The Sri Lanka/Ceylon file has 45 types represented by photos and 4 by line drawings. (He still needs photos of Sri Lanka Cessna 172, DeH Vampire, Kamov Ka-26, & Pasma PL-2). (3) The third example shows what you would get if you were to select an aircraft type. The C-47 file has 97 photos, 3 color side-views, and 19 countries without an illustration. (He still needs photo or color side-view of C-47 in the markings of Albania, Angola, Burundi, Comoros, Congo, Costa Rica, Gabon, Guinea Bissau, North Korea, Liberia, Mongolia, Myanmar/Burma, Nepal, Nigeria, Rwanda, Somali, Sudan, Syria, & North Yemen). (4) The fourth example shows what you would get if you were to select a company. The Pilatus file has photos of 16 types from the SB-2 Pelikan to the PC-21.

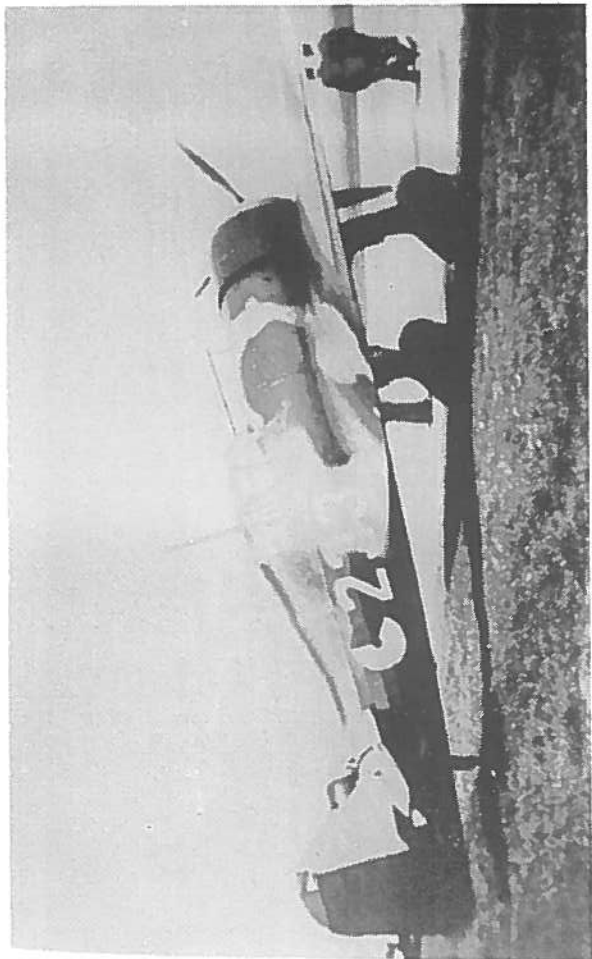
This is a very ambitious project, but also a very important one. I hope that all SAFO readers will see what they can do to help Chris fill in the missing photos. Also, his offer to post photos of models of small-air-force aircraft is an opportunity to have a venue for modeler to display their work. Chris' e-mail address is: [cthornburg@netpci.com](mailto:cthornburg@netpci.com). His snail-mail address is: John C. Thornburg, 243 San Roke Dr., Barrigada. Guam 96913, USA.



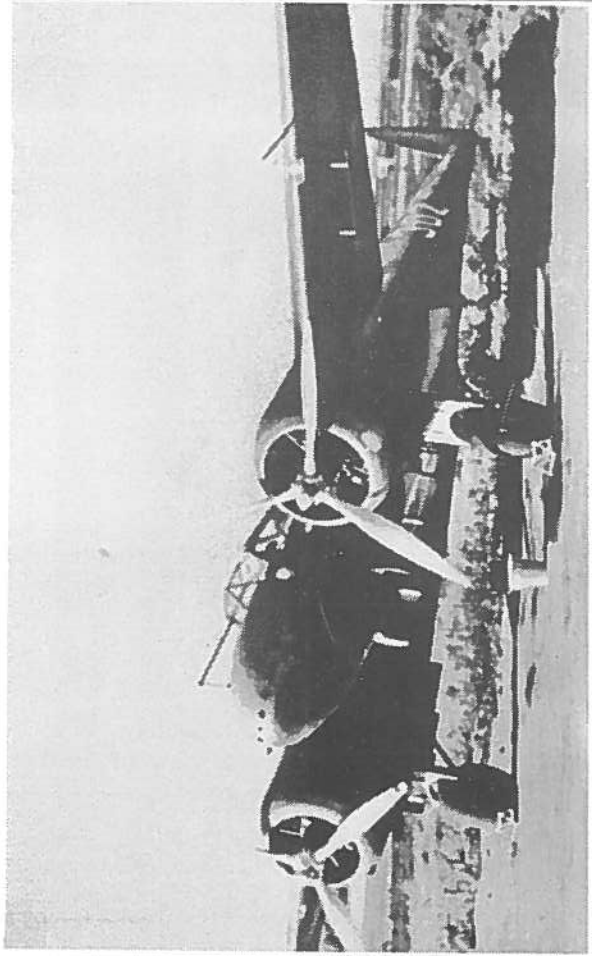
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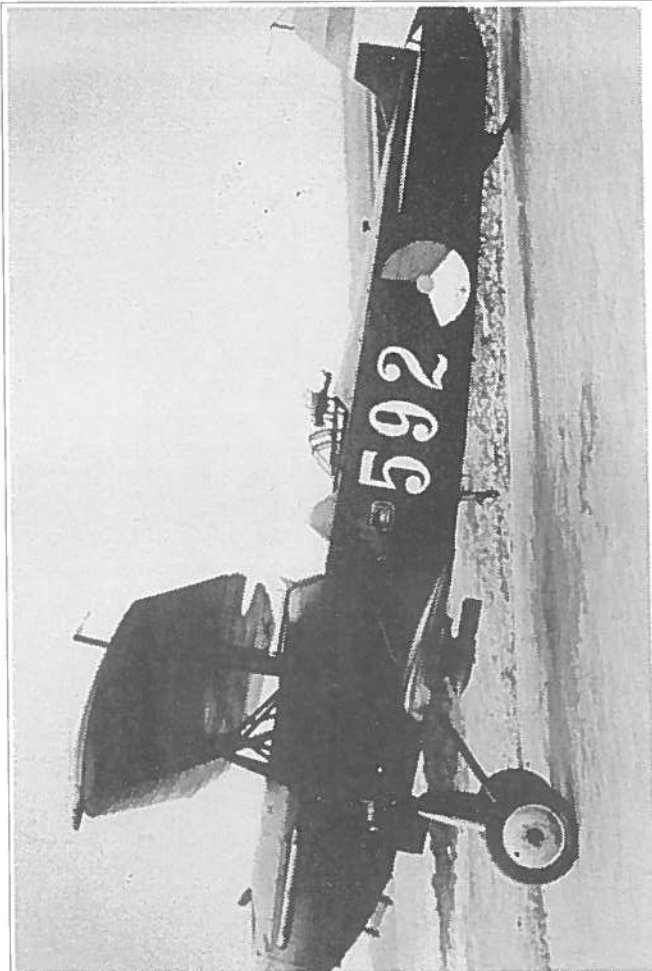


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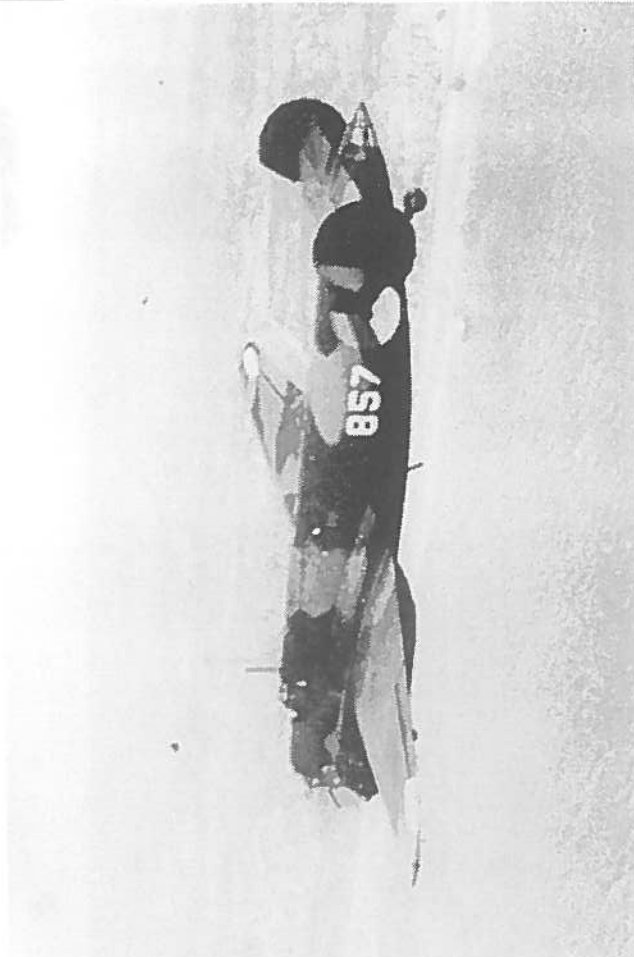


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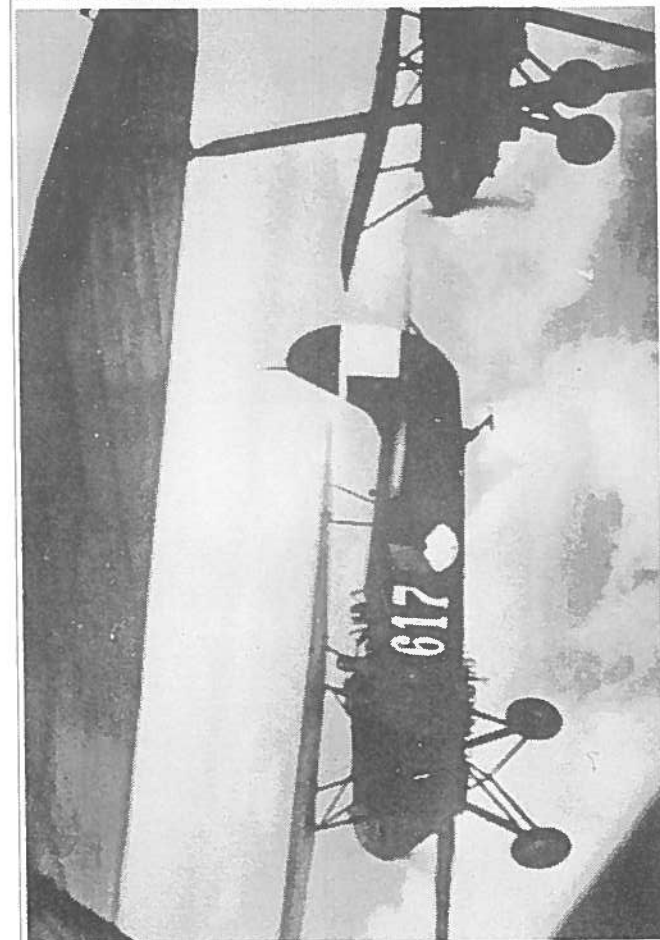




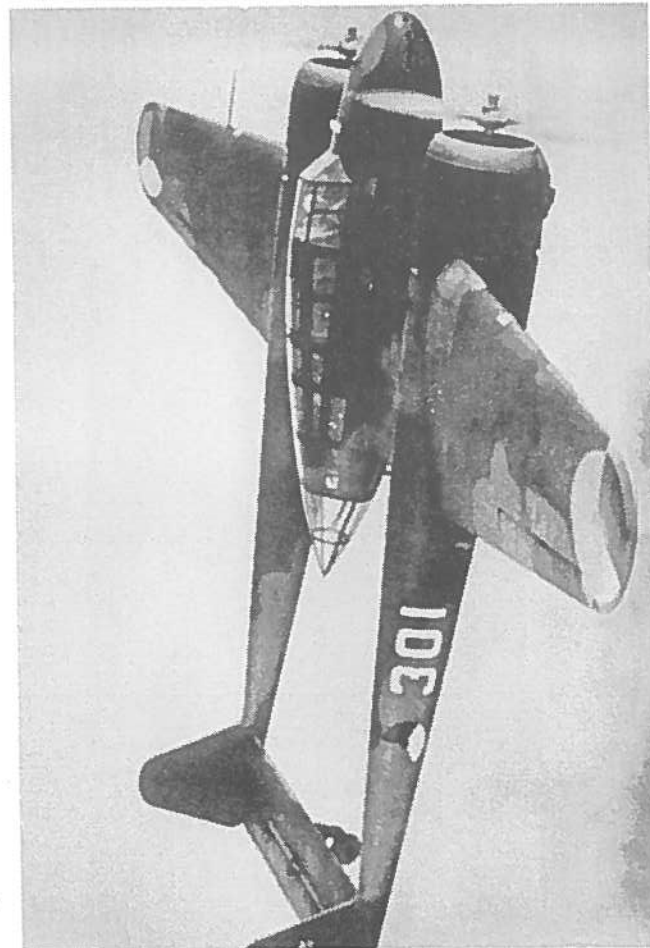
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